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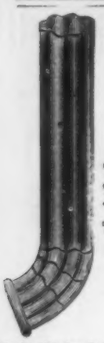

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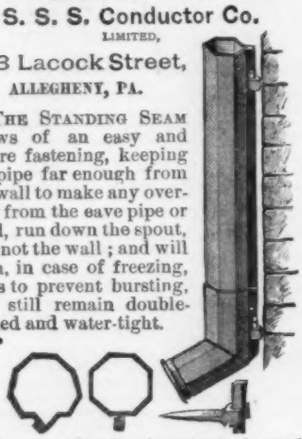

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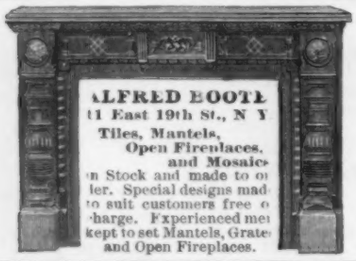

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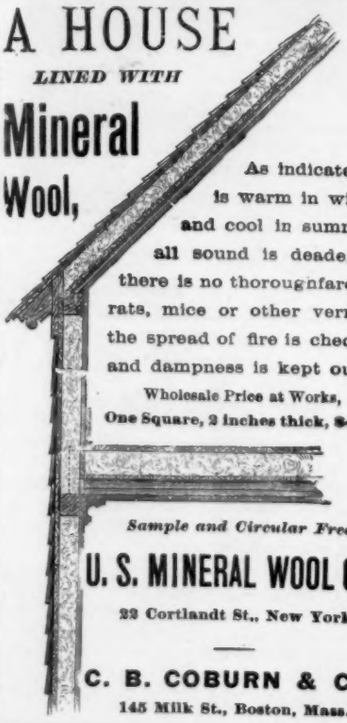

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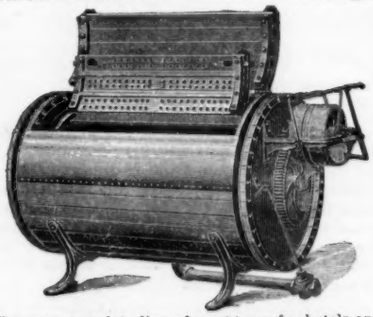

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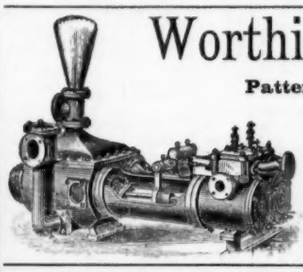

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Haverstraw Bay	6 50 @ 6 75	Philadelphia 40 00 @ 45 00		End Headers, all colors @ 65 00
" 1st	6 75 @ 7 00	Phila. mould 50 00 @ 80 00		Edge & End all colors @ 85 00
Hollow	@ 13 00		22 00 @ 29 00	
Fronts:			65 00 @ 350 00	
Croton, Brown	12 00 @ 13 00		@ 50 00	
" dark	13 00 @ 14 00			
" red	13 00 @ 14 00		@ 45 00	
Chicago pressed			38 00 @	
Chicago Moulded		Glens Falls 25 00 @ 26 00	25 00 @	
Baltimore	37 00 @ 41 00		60 00 @ 100 00	
Glens Falls—white	30 00 @ 35 00	Glens Falls Mould. 30 00 @ 35 00	30 @	
Philadelphia	24 00 @ 25 00	35 00 @ 40 00	35 @	
Trenton	24 00 @ 25 00	45 00 @ 60 00	55 00 @ 65 00	
Milwaukee				
Moulded:				
Clark's Glens Falls—Red	25 00 @ 27 00		@ 100 00	Dom. @ 65
" —White	30 00 @ 35 00	@	@ 120 00	@ 85
White " Mold,	45 00 @ 60 00	@		
Enamelled: *Imp.*				
Enamelled (edge.)	85 00 @ 100 00			
Enamelled (edge and end)	90 00 @ 115 00			
CEMENT, LIME, etc.—(₱ *cask.*)				
Rosendale Cement	95 @ 1 00	@ 1 40	*Not Sold.*	1 50 @ 1 75
Utica, Akron, Buffalo, Louisville, Milwaukee	*Not sold.*	*Not sold.*	1 00 @ 1 25	*Not sold.*
Portland, English (Gibbs)	2 50 @ 3 10	@ 3 20	3 00 @ 3 25	@ 3 50
" " (K. B. & S.)	2 75 @ 3 10		3 25 @ 3 50	@ 3 25
" " (Burham)	2 50 @ 2 80		3 15 @ 3 35	@ 3 00
" " (White's)	2 85 @ 3 00			
" German (Alsen)	2 50 @ 3 00	3 00 @ 3 50	3 15 @ 3 35	@ 25
" " (Fewer)	2 45 @ 2 70	3 15 @ 3 35	3 15 @ 3 35	
" " (Vorwohler)	2 50 @ 3 25		3 00 @ 3 25	
" " (Dyckerhoff)	2 75 @ 3 15	3 00 @ 3 50	3 25 @ 3 50	3 00 @ 3 2
" " (Lagerdofer)	@ 2 70	*Not sold.*	*Not sold.*	*Not sold.*
" " (Hanover)	2 50 @ 3 00		3 15 @ 3 35	2 50 @ 3 00
" French (Lafarge)	3 50 @ 4 50	*Not sold.*	3 75 @ 4 25	4 50 @
" American (Saylor's)	2 15 @ 2 30	2 15 @ 2 50	2 75 @ 3 00	2 50 @ 3 00
Selenitic		1 65	*Not sold.*	
Roman	2 75 @ 3 00	@ 3 20	2 75 @ 3 25	3 50 @ 3 75
Keene's coarse	5 00 @ 6 50	@ 7 50	8 00 @ 9 00	6 50 @ 7 00
" superfine	8 75 @ 11 00	@ 11 50	12 00 @ 13 00	11 50 @ 12 00
Lime:				
Lime of Teil	@ 5 00		*Not sold.*	
Hydraulic Lime	@ 1 45	@ 145		
Chicago Lime in bulk			65 @ 75	White Mash 1 25 @ 150
Wisconsin "			75 @ 85	1 00 @ 1 00
Rockland and Rockport, (Com.)	@ 1 00	@ 1 15	*Not sold.*	
Rockland and Rockport, finish	@ 1 20	@ 1 20	*Not sold.*	
State, com. cargo rates (nom.)	@ 90	*Not sold.*	*Not sold.*	*Not sold.*
State, finishing "	@ 1 10	*Not sold.*	*Not sold.*	*Not sold.*
Plaster of Paris (calcined.)	@ 1 25	1 65 @ 1 90	@ 1 75	2 00 @ 2 25
" (casting)	@ 1 35	@ 2 25	@ 1 75	2 25 @ 2 50
Hair (Cattle) ₱ *bush.*	21 @ 25	@ 30	20 @ 25	20 @ 25
" (Goat)	30 @ 35	@ 30	35 @ 40	28 @ 33
Sand, ₱ *load*	1 00 @ 1 25	@ 1 50	100 @ 1 25	@ 1 50
STONE. (₱ *cubic foot, rough.*)				
Granite: (*Maine*)		@ 60		75 @ 2 00
Limestone:				
Bedford	@ 1 00	95 @ 1 00	50 @	3 75 @
Joliet	@		35 @ 55	
Lemont	@		35 @ 60	
Serpentine			80 @ 90	75 @ 1 25

(*Continued on page vi*)

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Dimension	@	5 00 ℔ ton	20 @ 28	30 @ 5 00
Block	@	4 60 ℔ perch	8 50 ℔ cord.	50 @ 6 00
Rubble	@	1 25 @ 1 50	8 50 @	
Bluestone: (℔ *sq. ft.*)				
Sidewalk	30 @ 5 00	40 @ 1 75	75 @ 1 00	70 @ 90
Planed	50 @ 6 00	75	50 @ 1 00	1 10 @ 1 25
Sandstone.				
Longmeadow		75 @ 85		
Kibbe		85 @ 95		
Brown (Connecticut)	1 00 @	1 25 @ 1 45	1 50 ℔ cub.ft.	1 35 @ 2 00
Amherst }	90 @ @ 95	90 @ 1 00	55 @ 65	
Berea } Ohio	75 @ @ 1 00	80 @ 90	45 @ 55	90 @ 1 10
Berlin }	75 @ @ 1 00	80 @ 90	55 @ 65	
Belleville	80 @ @ 1 25	1 25 @ 1 35	"	
New Brunswick and Nova Scotia	@ @ 1 00	75 @ 1 00	"	
Caen	@	@ 2 00	"	
Marble (℔ *cu. ft.*)				
Lee, Mass.	@	1 75 @ 2 50	*Not sold.*	2 00 @ 2 50
Rutland, white	@	@ 3 00	3 50 @ 6 00	2 25 @ 2 50
Sutherland Falls	1 25 @ 1 75	@ 2 00	3 50 @ 6 00	2 50 @ 4 00
Glens Falls, black	@	2 00 @ 3 00	*Not sold.*	4 00 @ 4 50
Italian, blue-veined	@	50 @ 60	@ 4 40	—— @ ——
" Sienna	@	3 00 @ 3 50	*Not sold.*	3 25 @ 6 50
Tennessee, red	@	1 25 @ 2 50	@ 4 00	2 00 @ 3 00
" Knoxville	@	85 @ 90	@ 4 00	@ 1 50
Pennsylvania, blue	@		*Not sold.*	2 23 @ 2 50
Vermont, white	@	1 50 @ 2 00	3 50 @ 6 00	
Slate: Roofing (℔ *square*)				
" green	7 @ 8 00	4 50 @ 7 00	6 25 @ 8 10	6 25 @ 7 00
" " unfading	@ @ 5 75	@ 5 75		@ 7 00
" purple	7 00 @ @ 8 50	5 50 @ 6 50	@ 8 60	@ 12 00
" red	@ @ 15 00	13 00 @ 14 00	—— @ 16 00	@ 4 00
" black, Lehigh	—— @ ——	Brownville, Me.	7 20 @ 7 60	@ 4 50
" " Chapmans	—— @ ——	6 50 @ 9 00	7 30 @ 8 00	@ 8 00
" Unfading Black, Monson, Me.	5 50 @ 8 00	5 50 @ 8 00	6 00 @ 8 50	5 50 @ 15 00
Tiles, Am. ℔ M.	@		*Not sold.*	@ 3 85
N. Peach Bottom, warranted unfading				
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Boards: (*Ordinary dimensions.*)				
Pine, 1st quality, clear	65 00 @ 75 00	50 00 @ 60 00	44 00 @ 46 00	65 00 @ 75 00
" 2d quality	55 00 @ 60 00	42 00 @ 48 00	40 00 @ 44 00	55 00 @ 60 50
" 3d quality	18 00 @ 22 00	35 00 @ 40 00	37 00 @ 42 00	18 00 @ 22 00
Spruce	@ 25 00	11 00 @ 14 00	*Not sold.*	@ 22 50
Hemlock	ea. 17 @ 18	11 00 @ 12 50	@ 10 00	12 50 @ 15 00
Yellow pine	20 @ 40	30 00 @ 38 00	@ 28 00	17 00 @ 20 00
Cypress	@	32 00 @ 40 00	@	40 00 @ 55 00
Clapboards:				
Pine	@	33 00 @ 55 00	9 00 @ 20 50	—— @ ——
Spruce	@	23 00 @ 35 00	*Not sold.*	—— @ ——
Framing Timber:				
Pine			10 50 @ 14 50	25 00 @ 35 00
Spruce	13 50 @ 16 00	13 50 @ 15 00	*Not sold.*	18 50 @ 20 00
Hemlock	12 00 @ 15 00	@	10 00 @ 13 00	12 00 @ 13 00
Yellow pine	18 00 @ 25 00	23 00 @ 26 00		25 00 @ 30 00
Laths:				
Pine	@	2 25 @ 2 35	1 75 @	—— @ ——
Spruce	2 10 @ 2 15	2 00 @ 2 25	*Not sold.*	2 35 @ 2 40
Shingles:				
Pine, shaved ℔ M.	5 00 @ 6 00	@	*Not sold.*	
Pine, sawed "	4 00 @ 5 00	@ 4 50	1 85 @ 2 45	
Spruce, sawed "	1 50 @ 2 00	@ 1 50	*Not sold.*	
Redwood ℔ 125	1 40 @ 1 60	3 75 @ 4 50	5 50 @ 8 00	30" $10 @ 28
Cedar, split ℔ M.	@		*Not sold.*	24" 8 @ 21
Cedar, sawed "	@	2 00 @ 4 00	@ 2 00	20" 5 50 @ 14
Cypress. Split....7 x 24. "	18 00 @ 20 00	5 50 @ 6 00	4 00 @ 4 50	13 00 @ 20 00
Miscellaneous:				
Piles ℔ ft.	4½ @ 5½	Piles 6c. ℔ ft.	*Not sold.*	
Fence pickets, Spruce	8 00 @ 10 00	10 00 @ 18 00	Pine, 8 @ 21	12 00 @ 14 00
Cedar posts, 9 ft. (sq. posts.)	@	25 @ 35	9 00 @ 21 00	70 @ 1 25
Chestnut "	@	25 @ 35	*Not sold.*	28 @ 36
Finishing Woods: ℔ M. (*First Qual. Kiln-dried.*)				
Ash	@ 55 00	38 00 @ 48 00	35 00 @ 40 00	45 00 @ 50 00
Cherry	80 00 @ 120 00	60 00 @ 90 00	75 00 @ 85 00	65 00 @ 90 00
Chestnut	@ 55 00	38 00 @ 50 00	45 00 @ 50 00	60 00 @ 80 00
Butternut	40 00 @ 60 00	60 00 @ 70 00	50 00 @ 60 00	70 00 @ 85 00
Mahogany, Baywood	@ 180 00	150 00 @ 160 00	150 00 @ 180 00	120 00 @ 150
" St. Domingo	@ 350 00	120 00 @ 350 00	250 00 @ 300 00	
Maple	45 00 @ 50 00	45 00 @ 65 00	30 00 @ 35 00	30 00 @ 50 00
Oak, red	@ @ 70 00	@ 50 00	35 00 @ 40 00	35 00 @ 45 00
" white	@ @ 70 00	@ 55 00	35 00 @ 40 00	55 00 @ 65 00
" quartered	@ 90 00	65 00 @ 70 00	45 00 @ 50 00	70 00 @ 80 00
Sycamore quartered		50 00 @ 65 00	45 00 @ 50 00	70
Pine, clear	65 00 @ 70 00	30 00 @ 65 00	45 00 @ 50 00	65 00 @ 90 00
Redwood	60 00 @ 70 00	60 00 @ 70 00	56 00 @ 65 00	100 00 @
Rosewood ℔ lb.	@ @ 6		@ 7	
Walnut, black	125 00 @ 150 00	85 00 @ 120 00	80 00 @ 100 00	160 00 @ 200 00
Whitewood	45 00 @ 50 00	38 00 @ 45 00	30 00 @ 35 00	20 00 @ 30 00
Yellow pine ℔ M.	@ 45 00	40 00 @ 45 00	30 00 @ 35 00	30 00 @ 35 00
Gumwood, best red			30 00 @ 35 00	
PAINTS. (*In oil,* ℔ *lb.*)				
White lead, Am.	@ 6½	@ 6½	@ 5½	5 @ 6½
" Zinc, "	5 @ @ 8½	@ 8	7 @ 11	4 @ 6
Red, Am.,	6 @ @ 6½	6 @ 6½	@ 5½	
" Venetian	6 @ @ 10½	7 @ 12	1¾ @ 2½	6 @ 8
" Vermilion	65 @ @ 70	55 @ 60 dry	55 @ 60	Am. 14 @ 22
Red Indian, Eng.	12 @ @ 20	12 @ 20	12 @ 20	12 @ 18
Yellow Ochre	6 @ @ 15	7 @ 12	3 @ 15	7 @ 9
" Chrome	12 @ @ 20	18 @ 25	12 @ 25	12 @ 25
Green (chrome)	8 @ @ 13	8 @ 20	8 @ 20	9 @ 15
Green, Paris,	25 @ @ 40	25 @ 40	16 @ 35	18 @ 22
Black, lamp,	15 @ @ 25	15 @ 25	8 @ 30	8 @ 12
Blue, ultramarine	12 @ @ 18	18 @ 30	10 @ 35	11 @ 35
Oil, linseed, (raw) } (℔ *gal.*)	46 @ @ 48	48 @ 53	50 @ 52	52 @ 55
" " boiled }	48 @ @ 50	51 @ 56	53 @ 55	57 @ 59
Turpentine }	38 @ @ 39	42 @ 49	35 @ 36	@ 45
Varnish, coach }	@ @	1 50 @ 6 00	1 25 @ 2 00	1 75 @ 5 25
Shellac }	@ @	2 50 @ 3 00	3 25 @ 4 00	1 10 @ 1 75
Putty	2 @ 3	2 @ 4	02 @ 03	2 @ 2½
Whiting }	50 @ @ 90	1 @ 1½	1 @ 2	1 @ 1½
Paris white, (Eng.,) } (℔ *dry.*)	2 @ 3	2 @ 3	2 @ 2½	1½ @ 1½
Litharge, Am	5½ @ @ 5½	6½ @ 7	6½ @ 10	6½ @ 7½
Sienna (burnt)	12 @ @ 17½	14 @ 20	4 @ 16	9 @ 14
Umber, "	11 @ @ 16½	14 @ 20	@ 10	9 @ 14

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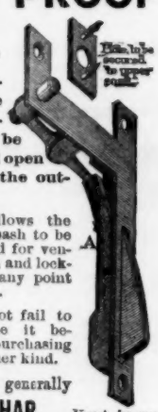

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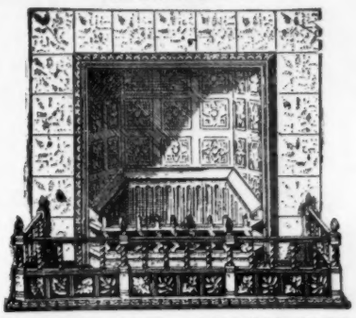

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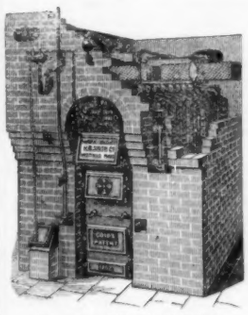

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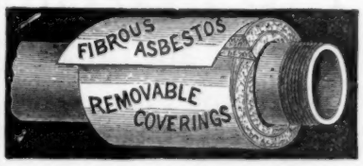

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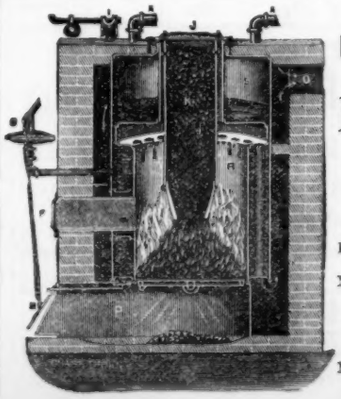

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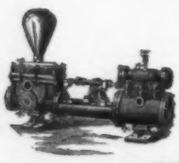

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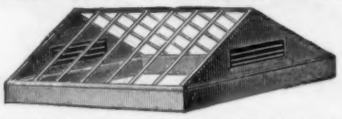

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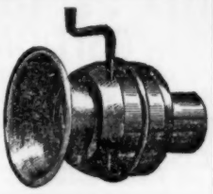

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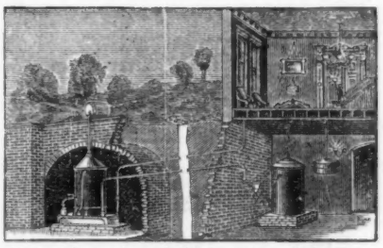

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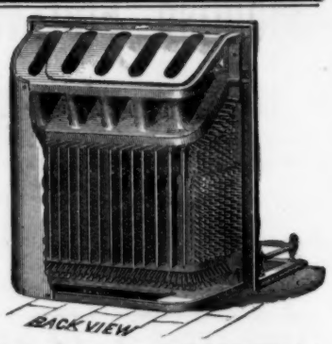

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WE learn from *Building* that an exhibition of architectural drawings is to be held next winter in New York, in connection with the Eighth Annual Exhibition of the Salmagundi Club, at the American Art Galleries, 6 East Twenty-third Street. The date of opening is fixed at January 11, 1886, and the drawings will be shown until February 1. Messrs. Cyrus L. W. Eidlitz, Richard M. Hunt, Robert H. Robertson, William B. Tuthill, Frederick C. Withers and F. A. Wright, with Professor William R. Ware, will act as the Hanging Committee, and will constitute the jury to decide upon the acceptance or rejection of the drawings. A general invitation is soon to be issued to the architects of the country, specifying the character of the drawings which will be most desirable for showing, and giving particulars of the exhibition. There is so much excellent material of the kind in this country that a very interesting and creditable collection of drawings ought to be easily brought together, and the association of these with the purely artistic work of the Salmagundi Club will give the exhibition just the sort of spice which it needs. We hope that the Hanging Committee will decide to admit photographs of executed work, as well as drawings. Although this would be rather an innovation, there is no question that the public takes much more interest in photographs of buildings than in drawings of them, and we are inclined to think that the public is not very far wrong in its preference. Great as is the pleasure which architects take in clever drawings, they know well enough that the picturesque dash of a drawing often hides the baldness or ill-studied proportions of a design which loses entirely in execution the charm which a brilliant perspective sketch lent to it, while scores of beautiful buildings, worthy of comparison with any in the world, obtain but a limited reputation for themselves or their designers, simply because the latter have not thought it worth while to hire professional draughtsmen to translate into clever linework for exhibition or publication the effects which they have succeeded in obtaining in the architects' true materials of expression, wood, brick and stone. It is not too much to say that an artist like Prout, or Haig, or Norman Shaw, using the license which is generally allowed to perspective draughtsmen, could represent any building, not spoiled with vulgar ornament, as interesting and attractive, while a poor perspective would discredit the most beautiful building ever designed; and apart from the question of public appreciation, the exhibition of architectural work by means of photographs would not only afford the fairest means of comparing the design of the building represented, but would induce many architects, particularly those at a distance from the great cities, who have little use for fancy draughtsmanship, to contribute illustrations of their work.

IT is rather unfortunate that the so-called Old Mill at Newport, the most interesting ruin in the country, should have become of late an object of so much attention as to invite propositions for restoring or otherwise improving it. For some mysterious reason, the ivy, which had for so many years covered it with its beautiful protecting mantle, was not long ago removed, and the rude masonry seems since to have suffered rapid deterioration. The stone-work is a coarse rubble, laid, apparently, in lime mortar, with very wide joints, if, indeed, the masses of mortar between the small stones can be dignified with the name of joints; and some such defence against the weather as the ivy leaves afforded seems to have been essential to the preservation of the ruin in its present condition. For want of this, or from some other less obvious cause, the walls are now found to be badly cracked, and the mortar-joints disintegrated, and some of the stones have fallen out. To prevent further mischief, it is now proposed to replace the fallen stones and point the whole work, inside and outside, with cement, retaining, however, as far as possible, the present rude effect of the masonry. At the top of the circular wall it is proposed to form a coping of Portland cement, to prevent the penetration of water into the masonry from above. Although various alterations and repairs have already been made in the building, they are so ancient as to afford, perhaps, when understood, important indications in regard to the history of the structure, and it will, of course, be advisable to avoid interfering with or obscuring these indications. Whether a cement pointing all over the work will hide anything of value is perhaps doubtful, but so much is to be learned from the form and material of mortar joints in old masonry that most people would decidedly prefer to have them left undisturbed; and if a simple shed over the ruin, with sparing consolidation of the cracked masonry, would suffice to preserve it, there would certainly be an advantage in adopting that means.

THE discussion in the French Congress of Architects upon the question of establishing finally the Association of Mutual Defence, about which so much interest has been excited, seems to have been a rather lively one. Something more than one hundred and fifty architects in all parts of France have already signed the articles of association, and it was confidently expected that enough more would join, on the occasion of the Congress, to complete the number of three hundred, which the provisional plan had set as the limit which should be reached before the association should be definitely organized; but this expectation was not fulfilled, and on the day set apart for the discussion of the matter in the Congress only about sixty members were present. This made it evident that the full number of adherents could not be obtained without further exertion, and perhaps considerable delay, and the question which naturally presented itself first for discussion was whether the limit of three hundred should be abandoned, and the Association organized at once, with the membership already secured. Although, considering the small entrance fees and assessments levied on the members, there was apparently some risk in assuming too soon the responsibilities with which the Association is to be charged, the members present showed themselves so impatient to avail themselves of the advantages which it offers that a motion in favor of immediate organization was passed by a great majority of votes. This action seems to have met with the approval of the distinguished gentlemen who have done most to promote the movement, for, although they have forborne to urge anything like hasty or rash action, one of them very sensibly pointed out to the meeting that no means of attracting new members, and thereby strengthening the Association, would be so effective as an example of a case undertaken by it on behalf of one of its members, and pressed to a conclusion.

ANOTHER point which was discussed at length and settled, as we think, in the most judicious way, was the question of accepting or rejecting that article in the draught of the constitution of the Association which provides that the ordinary entrance fee shall be six dollars, and the annual dues two dollars and a half, but that special assessments may, in case of need, be levied on the members to pay extraordinary expenses. Although the fixed dues, as proposed, are evidently very low, so low, in fact, that the Association is likely to find its usefulness restricted for lack of funds for its work, the feeling of unwillingness to enter into engagements of uncertain amount, which is very strong among the prudent French, proved so strong in the meeting that the clause relating to extra assessments was, by a majority of one, stricken out. The promoters of the movement, although they knew better than

any of the others the disproportion of the fixed dues to the probable expenses of the Association, as well as to the advantages which it will be in a position to afford, submitted gracefully enough to the rejection of this part of their plan, feeling, as they said, that if the Association were once constituted, experience would soon show how much money could be advantageously spent in its work, and how it would best be raised. No further change of importance was made in the constitution and by-laws as proposed by the committee on organization, and they were then adopted as a whole. Nothing further then remained except to order the filing of these documents in the office of the prefect, who, under the French laws, then issues the certificate of incorporation; and a vote was passed directing that this should be done, providing, however, that a final revision should be made by the judicial sub-committee, with authority to make such alterations in form or wording as might seem necessary. The first general meeting of the incorporated Association is to take place in November next, and until that time the committee on organization will administer its affairs as a provisional executive committee.

A NEW and rather surprising illustration of the common law relative to "ancient lights" is furnished by a recent decision in England, in the case of Bullers *versus* Dickinson. It seems that an old building, three stories high, stood upon a certain street, projecting some feet over the street line. The building, which was once a toll-house, had been altered into a shop, and a large window had been put in the front wall of the first story. The window had been in long enough to have acquired a right to light under the ordinary rules, when the city authorities decided to buy and remove the portion of the building to which it belonged, in order to give the street in front of it the full width. The old wall was not parallel to the street line, and it was necessary to cut off a portion of the building four feet in depth at one end, and seven feet nine inches at the other; and the owner, rather than have his property so extensively mutilated, pulled the building down, and erected a one-story structure on the site, with a front on the new line, and a shop window in it. A large building, which was constructed on a neighboring lot, was then found to interfere with the light of the new window, and the owner of the shop brought suit to prevent the infringement of what he claimed to be his ancient right to unobstructed light. The proprietor of the offending edifice maintained that as the window for which his adversary claimed the protection of the court was in a new wall, in a different position from the old one, and forming part of an entirely new building, of different plan and dimensions from the old one, it could not properly be regarded or entitled to all the rights which had been enjoyed by the window to which it succeeded; but the judge decided that even such modifications in the circumstances as those which had taken place did not amount to an abandonment of any original right, and ordered a decree for the plaintiff.

A NEW scientific association, comprising a small number of very distinguished members, has been formed in Paris under the name of "*Scientia*." The objects of the association is primarily the promotion of scientific knowledge, but the members have taken advantage of the present smallness of their number to give to their meetings something of a social character, and enliven them with a dinner, at which, as with many clubs which meet only occasionally, some eminent person is usually present as a guest. At the last of these meetings, as we learn from *Le Génie Civil*, the guest of the evening was General de Nansouty, the originator of the plan for establishing an observatory on the top of the Pic du Midi, about which we have already had something to say. This mountain constitutes a somewhat isolated spur of the Pyrenees, and rises to a height of more than seven thousand feet above the sea. Although not high enough to reach the limit of perpetual snow, the top of the Pic du Midi is exposed to terrible winds, and in winter is buried in snows which make the ascent to it impracticable. Nevertheless General de Nansouty, who had been strongly impressed with the value of the mountain, commanding, as it does, the great southern plain of France, as a site for a meteorological station, resolved to attempt a thing that the mountaineers said was impossible, and to pass a winter in a hut at the very summit of the peak. He collected materials, and during the summer constructed a little cabin, which he stocked with provisions and instruments, and put in communication with the outer world by means of a telegraph wire. Before the winter fairly set in, he established himself in his little hut, and there, cut off by the snow from either rescue or retreat, he stayed until spring opened again the way down to the plain. In spite of cold, hunger and loneliness, he pursued his observations, and kept his records, fortifying himself under adversity, as M. Tissandier said in introducing him to the club, by remembering that he was a soldier, bound by his profession not to yield to any force which he had not tried his strength against and found irresistible. Like a soldier, too, the General remembered, through all his privations, to gain what advantage he could for the benefit of the poor people about him, and used his telegraph to send word to the farmers on the plains when the melting of the snows on the peak showed that an inundation would soon follow below. After a few winters spent in this manner, a permanent and well-equipped station was, as our readers know, built in place of the little cabin, and a staff of observers established there; and within a short time M. Raphael Bischoffsheim has promised to build an astronomical observatory by the side of the meteorological station. If this promise is carried out, the astronomical observatory of the Pic du Midi will probably soon become as useful to science in its own way as the meteorological observatory. The experience of every year shows more clearly the advantage of placing astronomical observatories, particularly those equipped with powerful telescopes, on the tops of mountains. The one thing essential to the use of high powers in the telescope is a clear atmosphere, and, pure as we think our atmosphere is in clear nights, its transparency is so far inferior to that of the air about mountain tops that, seen from the latter, the atmosphere of the plain always appears filled with haze, which certain conditions of sunlight show to be due to perpetual clouds of dust, kept by gravitation in the lower regions of the air.

THE *Schweitzerische Bauzeitung*, which takes special pains to publish sketch plans and elevations of the best drawings submitted in public competitions in its own country gives in the last number the three prize designs for a primary school-building at St. Gallen. St. Gallen is a considerable city, and the building is intended to be a large one, accommodating about eight hundred children; and the manner in which the Swiss conduct their schools is so similar to that which prevails here that, as with most of their school plans, the present designs have much that is instructive for us. Indeed, except for the gymnasium, which, as in all Swiss and German schools, occupies a large hall in direct connection with the main floor of the building, all the plans might readily be supposed to have been submitted in competition for one of our best city schools. As usual in Switzerland, boys and girls go to the same school, but occupy different rooms in the building, and all the plans show accordingly six rooms on each floor, connected by a wide corridor, which is, however, divided across the middle by a partition, and is reached from the outside by two separate doors. Each of the six class-rooms is seated for about forty-five pupils, one plan showing single desks, after the best American plan, and the others double desks. All the rooms are lighted from the left of the pupils as seated, but in some cases windows are placed also at the back of the pupils in the corner rooms. In no case, however, is a window shown in front of the pupils, or on the right-hand side. The teacher's platform, in the two plans placed highest, is shown near the corner of the room, instead of the middle, an arrangement sometimes, though rarely, seen here. No preference seems to be shown for one side over the other, although the designers have generally placed the desk at the left-hand corner of the room, as the pupils face, which obviously gives it a better light than it would have in the opposite corner. The doors are in most instances, though not always, at the teacher's end of the room, and one of the plans, curiously enough, shows what appears to be a porcelain or brick stove, after the Swiss manner, in each room. The provision for ventilation is, according to our ideas, very inadequate, nothing but flues in the brick partition walls being shown for the purpose, except in one plan, where a shaft, warmed, apparently, by a smoke flue inside, serves to ventilate the lavatories, which certainly need it, being, in all the plans, placed close to the entrances, and opening out of the main hall. Considering the tender age of the children to be accommodated, this is perhaps a good arrangement in itself, but nothing short of a strong forced ventilation could prevent it from becoming a source of offence.

FRENCH ARCHITECTURE OF THE NINETEENTH CENTURY. — I.

Window (œil de bœf) in Hôtel at Riom. France. (style of XVI cen.)

THERE is in the French mind a notable combination of respect for precedent and law with love of personal freedom; of a regard for discipline and subordination with an inextinguishable individuality. This shows itself in art in a keen sense of organization and subordination, and a great fertility and variety in detail; and with their feeling for elegance of form, and the liveliness of their invention goes far at any rate to explain the superiority which they show over other nations in the fine arts, at least as far as concerns excellence of form. Their monarchial and military habits have some relation to these characteristics, — perhaps of cause, perhaps of effect. At any rate no one lives among the French without noting their instincts of command and of subordination, and no one examines their art without marking its excellence in technical discipline. Their tendency to disciplined form in art has of course been greatly steadied by the influence of the Institute, the Academy and the Ecole des Beaux Arts, which have preserved an uninterrupted traditional influence from their foundation. No doubt, like every conservative influence, while this has been a great safeguard against lawlessness,—not always against extravagance, as we shall see,—it has done something to check the freedom of individual and even of general development.

A result of these characteristics in French art is that the French have not usually been innovators. Any radical change in art, such as has two or three times come over Christendom, since the invention of pointed Gothic, which does belong to them, has always begun outside of France, and the French have followed more or less slowly, where others have led; and when after other nations they have taken up new fashions in art, they have rather interwoven them with their own previous habits, and modified them till they seem characteristic of themselves, than surrendered themselves fairly to them.

Thus, when the French court introduced the Renaissance from Italy, it took in French hands a French dress, and was for a long time far more mediæval than Classical in feeling. The high roofs and tall chimneys and pinnacled dormers, and corbelled cornices of the French chateaux held their place with the Italian orders through two or three centuries, and it was not till the time of the later Bourbons, that what was traditionally Classical architecture wore any classical look to France.

The beginning of this century however, found all Europe given over to classicism, and France gone mad for it. The discoveries of Stuart in Athens had aroused the interest of all French as well as English artists, and Leroy and other Frenchmen had followed him. The Revolution had turned everything into Classic as far as possible in politics, society, art and religion even.

Napoleon himself was full of the Classic mania in art, and his court painter, David, who was a very dictator in art, pervaded every department of it with his uncompromising Classic spirit. Two young Frenchmen, Percier and Fontaine, pensioners of the French Academy at Rome, fell to designing first stuffs and furniture, afterwards monuments and interiors of buildings in the prevailing style. They built the Arc du Carousel in imitation of the Arch of Septimus Severus. The Bourse, the Madeleine, the Arc de l'Etoile were begun in the early days of the Empire; the Bourse and the Madeleine were as purely Classical buildings as their respective architects Brogniart and Vignon knew how to make them. In the Arc de l'Etoile, designed by M. Chalgrin, French individuality again asserted itself, and though the general form and the style of the details are Classical, they are not the form and details of any one model, and the whole is as distinctly French as it is magnificent. The Madeleine was, as is known, a scheme of Napoleon's, for a temple of glory in honor of the soldiers of the *Grande Armée*. When the competition for the design was in judgment before the Institute he wrote back from his camp, "It was a temple that I wanted and not a church. I meant to have a monument such as was to be found in Athens, and such as was not to be found in Paris." The Madeleine is such a monument as never was nor would have been in Athens. It was meant to be Greek, and is commonly reputed pure Greek, I believe, but it is Roman in its proportions and ordinance, and more Roman than Greek in its details. It may be said in fact that the French, at least at that time, were reproducing the Greek in very much the same way that the Romans did; that is, they adopted a Greek form and carried it out, rather as they assumed the Greeks would or should have carried it out than as they would have found to be Greek, if they had studied their models with sufficient exactness; but with this advantage in favor of the French, that being much nearer to the Greeks in artistic feeling, than were the Romans, they produced a result more like the Greek. However, the Madeleine is beautiful and grand, and like the Walhalla at Regensburg, valuable as a single very fair example to our day of what a Classic building was, but with its grandeur sensibly diminished by its position in a wide open space, surrounded by very high buildings, and still more by the painful way in which its huge columns, which should have been monolithic or built of a few complete drums, but could not, are cut into small sectors of slices. The Bourse, as is well known, is simply a rectangular cella, surrounded by an open peristyle which with its entablature and attic makes its only significantly visible feature. An incident of its construction is interesting as an example of the difficulties which the unpliability of the architecture of Vignola brings on architects, and of a luckier chance than usual in escaping from them. M. Brogniart had adopted for his building, we read, the Ionic order, as the symbol of "that elegance without luxury, which naturally suits with industrial wealth." Unhappily, when the foundations had been laid, and so disposed that the inter-columniations were irrevocably fixed, the purposes of some of the rooms under the portico were so changed as to require that their ceiling should be raised. This called for an order of higher columns, but the Ionic columns could not be lengthened without ruining the order. There was nothing for it then, but to use instead the Corinthian column, which with the same inter-columniation, would be two or three feet higher, being ten diameters instead of nine in height. This was done, and the practical wants of the building were so far met; but M. Brogniart lost the expression he had striven to give to his "monument."

The Bourse and the Madeleine, the Corps Legislatif and the colonnade of the Louvre are typical examples of what the French call *Architecture Colossale*, that is to say architecture in which a single order is made to cover two or more stories, and with or without the help of an attic, to do duty for a whole façade. They are very grand, and I for one should be sorry not to have them to look at; but they seem like monuments made and kept for show, not like buildings desirable or attractive for any use. They have the merit, however, of not trying to reconcile the irreconcilable: the windows which light the two or three stories are not brought to the front to contradict the singleness of impression due to the one controlling order.

With the Empire the time for great undertakings in France ended. The impulse given by the Republic and by Napoleon spent itself, and little was done in architecture during the Restoration, but to carry on some of the work already undertaken. The Chapelle Expiatoire in Paris was built to consecrate the spot where Louis XVI and Marie Antoinette were buried, and commemorates the Swiss Guard, who gave their lives in their defence. It was designed by Percier and Fontaine, and is a small chapel, in form a Greek cross with central dome, of elegant Classic detail, noticeable for the skilful way in which the apparent size of the dome is increased by somewhat contrasting the four main arches which support it, a treatment employed on a large scale by Michael Angelo in St. Peter's, but neglected with loss by other men who have built domed churches.

The reign of Louis Philippe was at first almost as unproductive as that of Charles X. The Bourse, the Madeleine, the Arc de l'Etoile were finished. The Obelisk of Luxor, a monolith seventy-five feet high, was brought from Egypt and set up in the Place de la Concorde. But during this period of non-achievement, while the Classic fervor had died away, new interest in archæology had awakened. The seasons of productive activity are apt not to be those of study and acquisition. Accordingly, this apparently inactive time was in truth a time of remarkable growth. The English, who a century before had set on foot the Greek revival, had now turned their attention to mediæval architecture, and a Gothic revival was already in full movement among them. The new interest spread to France, and was increased by the works of Lenoir, Laborde, Taylor, Nodier, and others. Victor Hugo, by the publication just after the accession of Louis Philippe of "*Notre Dame de Paris*," gave a powerful impetus to popular interest in mediæval art and especially architecture, and the whole so-called romantic movement in literature and art throughout Europe, lent its influence in the same direction. M. de Caumont, to whose energy the study of archæology in France owes as much as to anybody, founded the *Société Archèologique*, and by writing and lectures and meetings for discussion encouraged his favorite study. In 1837 was established by the Government the *Comité des Arts et Monuments*, for the preservation and restoring of important old French architectural works. Through their influence most of the conspicuous remains of mediæval work in France have been sought out and put in the charmed list of "Monuments Historiques," which makes them in a sort pensioners of the Government, secures them against depredation and decay, and provides in a measure for their restoration. Two architects whose names are familiar to most of us, MM. Lassus and Viollet-le-Duc, interested themselves especially in the critical study of mediæval architecture. Under their care was undertaken the restoration of the Ste. Chapelle, and of Notre Dame at Paris; and one or other of them had charge of the principal restorations that were undertaken out of Paris.

Meanwhile the Government was doing its work in analogous ways. Napoleon's expedition to Egypt, and the voluminous description of the country and its remains, undertaken by his order, had already

opened a field of study; and if the French found Egyptian architecture too solidly rigid to be bent freely to their purposes, they got some material and some ideas from it. The Government of Louis Philippe undertook through M. Charles Texier the examination and publication of the principal architectural remains of Asia Minor. The magnificent volumes which he brought out, and still more those published by Hittorff after his explorations in Sicily, had a great effect on French art. Architectural travellers from other countries added their contributions. I take special note of these movements in the reign of Louis Philippe, because these were the influences which prepared the changes that gave French architecture the character we have seen it assume in our day. All the new material that has been woven into it, and the freedom of treatment it has assumed under the Second Empire are the outcome of the studies undertaken under Louis Philippe, stimulated by the social and intellectual activity and the lavish patronage of the new reign.

One might fancy that architecture had gone to sleep at the Restoration, tired out with the excesses of Classicism, and when it awoke at the end of Louis Philippe's reign, it was with an entirely new feeling, and it went about its work in a new spirit. The growing feeling of romanticism, and the modern tendency to scientific inquiry and rationalism were equally opposed to the rigidity of Classic forms, and the active-minded Frenchmen of the day could not surrender themselves to the straight guidance of precedent. Nevertheless, the academic prestige was too strong to yield entirely as in England to the influence of mediævalism, and there has not been in France the same protracted war between the styles as elsewhere. The Ecole des Beaux-Arts, under the Institute, has never given up its essential control of the profession: academic precision and symmetry were and still are insisted on. It is curious to notice how all the practical doctrines of design which the mediævalists have insisted on, such as subordination of forms to uses, clear expression of purpose, characteristic and common sense use of material, were one by one acknowledged and then adopted by the French leaders, and how, notwithstanding, the academic spirit and classical feeling remain. Toward the end of Louis Philippe's reign, a number of works were undertaken which showed an entirely new manner, and made the beginning of what might almost be called a new style. Some of them, it is true, had been designed and undertaken in the early part of his reign. Their leading characteristic was a free and thoughtful adaptation of Greek forms, lines and mouldings to a careful study of modern uses and the expression of modern feelings; but the architects were somewhat eclectic: their materials were drawn not only from Greece itself, but from Lycia, Syria and Sicily, and even from the freshly-examined Romanesque of France, especially from that part of it which had been influenced by Byzantine tradition. In fact there is so much similarity of feeling for line and detail between the Greeks and French, and French prescriptive training helps this so much, that the effect of the efforts of mediævalists on the body of French architects has been to turn their attention rather to what was Byzantine or later Greek in their old architecture than to the distinctively mediæval or Gothic period. France may almost be said to have been three times colonized by the Greeks: of the first colonization by the Greek sailors before the Roman dominion at Marseilles and other Mediterranean seaports, it is too late to trace the marks perhaps, unless in the singularly classical physique, maintained distinct to this day, of the people of Arles and its neighborhood. The second colonization, so to speak, when in the Dark Ages caravans from the Byzantine Levant landed at the same seaports, and stretched their march across Toulouse and Aquitaine, had left us the Church of St. Front at Perigueux, and a thousand marks of Greek form on the architecture of all that neighborhood; marks which reappear among the varied detail, recently gathered from Greece herself and all her accessible colonies to form the style of the Second Empire, in which we may, if we will, see, as it were, a third Greek colonization in France. L.

Electric-Lights for Light-houses. — Thomas A. Edison was asked by a New York *Tribune* reporter whether the report of the English Committee on Light-houses, to the effect that electric-lights were useless in a fog, was true. "The report was half truth, for it only deals with a half subject," replied Mr. Edison. "The idea that they expressed was that gas was more valuable in a haze than electric-lights, the latter being invisible at a short distance. Such a report, if adopted by people without investigating, would give a tremendous blow to my business, but a little study will show that it applies only to one kind of electric-light. The reason why the light on which the committee based their report cannot be seen through a fog is that there are no red or yellow rays in it. The watery vapor in the air during a fog absorbs the arc-light, and renders it so useless that there might as well be no light. Some time ago I was walking through Boston Common in a haze and came suddenly upon an arc-light that was invisible a hundred feet away. The arc-light shows its lack of the red and yellow rays in various ways. For instance, put one on a high pole and while everything for a short distance around will be brilliant, the light seems to sink into the ground a short distance away. The black earth absorbs the white rays and nothing is reflected. A gas-jet in a fog appears to be blood red a short distance away, and that is the way with an incandescent electric light, excepting that the line is less pronounced. There are both red and yellow rays in the light, and a jet of the same power can be seen no farther, while all heat and smell are abolished. Then, six incandescent lights are equal to an arc, and the English Committee, as well as other people, are bound to find out that all other lights are doomed for light-houses, excepting the incandescent electric light."

BERLIN AND NEW YORK.[1] — II.

In my last letter I spoke of the recent brick structures in this city, of their general features and the nature of their decoration; but there remains something to be said regarding their brickwork specifically so called. The units resemble in shape our "regulation" brick at home, but are, if I mistake not, a little smaller in size, and I have noted no disposition to vary from this one pattern, either when passing from one structure to another, or from one to another portion of the same structure. It is impossible, I fear, to express in words the mechanical perfection with which the brickmaker has done his work; the precision of edge, the flawless, hard smoothness of surface, the rigid, absolute uniformity of tint he secures. If to be mathematically invariable in form and color is the artistic ideal in brickmaking, then indeed the Berlin artisan leads his craft. And an equally supreme mathematical exactness is attained by the bricklayer also, for his units are set and pointed off with a faultless regularity that seems hardly the work of mere human hands. If a very conscientious machine ever makes and puts up a brick wall it will look exactly as do the brick walls here. I need hardly say, however, that such are not the ideals most in favor with ourselves to-day. And in this respect at least, I think we are more "scholarly" than Berlin, if to be scholarly means to follow as closely as possible the example of the greatest building ages; but to one who has seen them both it needs no citation of authorities for or against to prove the superiority of our best recent efforts over those which are characteristic here. Such examples as Sever Hall at Cambridge, and the Lexington Avenue Warehouse, the Tiffany Mansion on Madison Avenue, and the Columbia Bank in New York, not only show a desirable variety in aim and result that is quite unmatched in Berlin, but each in itself, I think, is far more satisfactory than anything here, at least from an artistic point of view. From the practical, mechanical point of view, I cannot speak. I can see of course that nothing could promise permanence with greater emphasis than does this German work. The tooth of time — the foot of the lichen, the wash of water or the friction of dust — is not likely ever to corrode these cast-iron surfaces into decay; not likely, I sigh to think, ever to mitigate them into greater beauty. And one is fain to believe that the methods which have served so well in mediæval and Roman work might have served well enough even for the needs of a Prussian bureaucracy. At all events it is a sad offset against the evident immortality of these structures that they should convince us for the moment that nothing on earth could be uglier, more repellant, or more inartistic than the burnt clay which is so indispensable an ally. — scarcely even a wall of red iron marked off into tiny rectangles, and decorated with reliefs in the same substance: I do not think there would be a pin to choose between the two. I should explain, however, in the interests of strict accuracy, that the painful uniformity in tint at least is not so thoroughly achieved in the light shades of yellow brick as in the red which is more commonly used. But we feel sure it has been just as earnestly desired.[2]

A pretty fair comparison may be drawn between these recent Berlin buildings and the New York Produce Exchange. I do not thus select it because we at home consider it a peculiarly triumphant essay, but because it comes so near to the German work in general intention. No similar structure here is so grandiose and imposing, or (with all its minor imperfections) so harmonious and good in design and proportion. In none are the brick surfaces so pleasantly treated, and in none are such fine effects of shadow secured. I doubt, on the other hand, whether a German architect would ever use such "styleless" and reprehensible decorative motives. But even here we feel the *aim* has perhaps been better, since there has been some perceptible effort to produce a *decorative* as well as a merely ornamental result. The tower is better in itself, and not a whit more disassociated from the main mass than is the tower of the Rath Haus. And I think that even in the weakest point of the Exchange — in the want of coherence which exists between its interior and its exterior forms — it is not a greater sinner than the Rath Haus, which had in its given problem, moreover, far less excuse for sinning. At all events the Exchange produces a powerful, agreeable, individual and lasting "architectural impression;" and I cannot say as much for any analogous building here. One of my chief expectations in coming to Berlin was that I should see many things that would be suggestive as regards our own current effort to make good use of brick and of terra-cotta decoration. But no expectation I have ever

[1] Continued from No. 499, page 29.

[2] The hard uniformity of surface in these buildings is not correctly reported of by photographs: the sun seems to find out and accent diversities and gradations which escape the human eye.

cherished has been more utterly disappointed. If there are lessons to be learned it is not we who need sit as scholars.[1]

A much more ambitious essay than any of these last is the new Kunst-Gewerbe Museum, built by Herren Gropius and Schmieden. It stands free on all sides, but again we have a four-square right-lined box, relieved only by a portico which is tacked onto, not combined with, the main mass. The windows of the principal story are large and square, and divided into three lights by pilaster-mullions, after the manner dear to German architects in Renaissance times. These as well as most of the other profusely applied trimmings and the basement are of a yellowish sandstone; there is also terra-cotta decoration, and the broad spaces between the small windows of the third story are filled with pictorial panels of mosaic executed in brilliant colors on a gold ground. So the red brick which forms the body of the structure does not play a very large part in the scheme. A vast deal of money, labor and well-trained skill have been expended on the decoration, and the most complete and brilliant color-effect has been aimed at; but the result is not very inspiriting. Above the basement, for example, runs a wide frieze of figures representing the various technical and industrial processes. It shows, as do the glass mosaics beneath the cornice, the general German tendency to tell a symbolic story with child-like directness, but with little power save of a "literary" illustrative kind; little conception of what is the real meaning of the words, *monumental*, *decorative*, or even *plastic*. There is a pettiness of intention, a commonplaceness, so to say, of mood, a sentimentality and "sweetness" of feeling about the work which doubtless would not in the least distress one in the original drawings, but which are essentially inadequate to the necessities of monumental decoration. Again, it was not a very monumental idea to flank the entrance-steps with seated figures of Holbein and Peter Vischer, one drawing in a book, the other modelling a detail of the Sebaldus-Grab. They are correct and scholarly in design, and pleasantly naturalistic in general expression and treatment; but they should have been little statuettes, not over-life-size figures put to architectural, monumental service. The color of the great mosaic pictures is of the same sort I have noted elsewhere; bright and varied, not distinctly inharmonious and yet not harmonious as we mean the word when speaking of monumental decoration. It has no pronounced key-note upon which all else depends, nor does it blend in a distant view into any pleasantness of tone. And the same may be said of the general color-effect of the building. There is no dominant note: for the brick has been too much suppressed by the ornament to afford this; and no rythmical balance of tones. Coloristically and in design the structure is an aggregate-of parts, more or less interesting in themselves, but bound together by no vital cohesion, and certainly worked out of nothing that could be called an architectural idea. Such a piece of simple structural design, as I will say, that side of the Boston Medical School which faces toward Trinity Church, hasmore architectural value than all this ambitious costly overlay which there has been no conception, no *architecture* in fact to guide and unify.

When we enter the Museum we find it is composed of four wings surrounding a great glass-roofed court, which is encircled on the ground floor, and again above by arcaded galleries giving access to the exhibition rooms. The construction is not in any way remarkable for beauty. The decoration, a little too pronounced and heavily rich, interferes a little with the effect of the collections themselves. And we are as surprised as shocked when, in a structure dedicated to the growth of good taste in art and industry, we see that the superficial sumptuousness of effect has sometimes been wrought by the aid of shams; by marble which is paint, and by gilded bronze which is not metal at all. One element of the interior decoration, however, is very charming, and charming in the way that might least have been predicted. A frieze of figures which runs beneath the great glass roof, strikes me as the best essay in polychromatic sculpture I have anywhere seen. It is quite effective enough as decoration, yet very tenderly harmonious in a rather pale scheme of color. I doubt, however, whether any human being will ever look beyond its general agreeableness of effect, will ever stop to trace out in detail the myriad symbolic intentions of its endless groups and figures; intentions the mere main points of which fill two pages of explanation in the catalogue.

One wonders whether it was the evident — and, indeed, generally acknowledged — failure of this building as a whole which led the powers that be to make a new and near neighbor so very different. I am sorry I cannot name the architect of this (the still incomplete Ethnological Museum) for it seems to me one of the three or four best things in all Berlin. It is of a light gray granite, very delightful in tone, and a very refreshing contrast to the ubiquitous pale yellow of sandstone and stucco, and the hard red of the new brick, as well as to such a parti-colored mass as the Kunst-Gewerbe Museum. The style is a stern Roman Renaissance with an applied Doric order of majestic proportions below, and a Composite one above, and no further decoration. Here we do see at last an attempt at structural composition. The building holds a corner site, and at the angle is a great semi-circular pavilion which is brought farther forward than the line of the wings, but at its base retreats somewhat beyond their face.

Still more successful — indeed I think extremely successful and extremely interesting — is the new Technological Institute in the suburb of Charlottenburg just beyond the Thier-Garten, an enormous structure of stone, the chief front of which measures two hundred and thirty metres. The side wings project so as to form two great corner pavilions behind which the main portion of the front is considerably withdrawn, being itself broken by a central pavilion of much shallower but still effective salience. A rather rapid rise in the ground has been utilized to form a fine approach to this — a wide flight of steps encircled by a driveway which leads over their platform. Only in the central pavilion is there any pronounced recourse to that columnar style which is so generally favored here, and this seems to me the least successful part of the composition — not very agreeable in its proportions (the attic being unduly heavy) and overladen in its rich profusion of shafts and statues. Elsewhere the design has been suggested by earlier and simpler Italian Renaissance examples. The main stretches of the façade show, above a lofty, very solid basement with rectangular openings, two ranges of round-arched windows, and a third where the windows are of similar shape but being small and closely set, and having delicate little applied columns between, produce the effect of a graceful arcade. In the corner pavilions the treatment of the basement is the same, but the upper stories are differently designed, and in a way which gives a welcome accent of strength and solidity; their windows being grouped in the centre, and the broad wall-spaces on either hand being enlivened but not unduly disturbed by niches with statuary. Add to this that the proportioning between the stories is very happy (except as I have said, in the central pavilion), that the cornice is strong, and is crowned with a light but rich balustrade, and that the string-courses are well marked, and show clear and charming profiles at the angles of the structure, and it may be understood that there has been here a great divergence from the general local level in design. I am sorry that no photograph of the building can yet be had; but after all, an illustration would not reproduce its chief beauty, its most individual characteristic — its color treatment. This is, I think, the most delightful essay in "natural polychromy" I have ever seen from a modern hand. Of course there may be others as good which I have *not* seen, but I doubt whether any of them can be better. The lofty basement is of a red sandstone, similar in color, if I remember rightly, to the Longmeadow stone of Boston but lighter in tone. The story next in order is of a rather pronounced yellow sandstone, the "value" of which is in the best accord with that of the red below. And the two upper stories with the balustrade are of a gray granite so pale as to be almost white. The proportioning of these masses of different color seems to me very happy, and their harmony has been brought into greater unity by the artistic device of carrying up into the white a reminiscence of stronger tones. In the spandrels of the third story, disks of red and green marble have been introduced, and the little columns of the uppermost, arcaded story are red again. The scale of the building is so great that such a pronounced variety of color produces no unquietness of effect, and the result is as fine in its monumental grandeur as it is individual and brilliant. It is a pity so good a structure does not stand in the centre of the town, instead of amid rather shabby surroundings in a suburb. As we were provided with no permit we were unable, unfortunately, to see the interior, which from the evidence of the exterior may well be worthy of examination. The designs for the work came from the veteran hands of Lucæ and Hitzig, but I do not know whether the color treatment should be credited to them or to Professor Raschdorff who was intrusted with the carrying out of their intentions.

If this building is a genuine and imposing architectural conception — and, therefore, an exception in Berlin — so too, though in a totally different way, is the railway-station for the Anhalt line, erected a few years ago by Herr Schwechten, and widely and deservedly known to fame. Though in one way not, of course, the more beautiful of the two it is perhaps the stronger and more interesting in its entire independence of time-honored models, and the more instructive in its excellent resolution of one of the most frequent and trying problems of to-day.

It is unfortunate, again, that no photograph can be had which gives any idea of its best qualities; none, that is, of its interior. The exterior front shows, above a porch and waiting-rooms of no particular originality, a group of slender round-headed lights embraced beneath a great slightly elliptical arch which shows the form of the glass-and-iron roof of the terminus proper; but when we have passed through the waiting-rooms and up a stairway into this terminus, we see that the externally visible forms serve the laudable purpose of expression only; the roof is actually supported by a similar group of unglazed lights, which is united with the external group over the roof of the inner waiting-room, by flying-buttresses. And a corresponding design, supported by a huge arch beneath, forms the opposite end where the tracks emerge from under shelter. The scale is so enormous, the design so happy in its proportions, and so strong, massive and effective in its treatment, that the impression produced is of the grandest sort; and grand in a way which is perfectly suited to the utilitarian purposes of the structure and the repose of its material, and perfectly expressive in its functions as supporting the vast roof above. The main range of large round-arched windows on the long sides of the terminus show, again, very fine proportions, and the glass employed is of a pleasant pale-green hue. The only fault one can find is that the substructure here does not seem solid enough with its line of close-placed doors and windows. The brick which is employed, both outside and in, is of a good light yellow color, not so

[1] I may add that I have remarked no attempt whatever to use carved brick in decoration.

uniform in tint or so hard in tone as is the rule in Berlin. But the ornamental details are still too small and finnikin and too profusely used. Such monumental forms might well have been left to play their part without the aid — or, more truly, the hindrance — of petty, pretty little decorations, which in scale and in motive are out of character with the nature of the building.

The roof of this terminus, is, I believe, exceeded in span but by two others in the world. More, I am too ignorant to say of it, save that to an uninstructed eye it looks unusually light and simple, unusually inobstructive in every way.

As is well known, ten years of discussions, disputes and competitions have finally been ended by the selection of a design for a new Parliament Building. Ground has been broken for it in an excellent situation beside the Thier Garten and just beyond the Brandenburg Gate. But the plans are no longer on exhibition, and I have been unable to learn their character. I am sorry to say, too, that the projects for the new Kaiser Wilhelm Strasse have also just been withdrawn from public inspection. This street is to continue the Unter den Linden on the other side of the Spree, running through one of the older quarters of the town where such a thoroughfare is sadly needed. The Marien Kirche which is one of the very few really ancient structures in the city will, I hear, be brought into fuller view than heretofore; but such other good results as may be attained must be left for some future tourist's chronicle.

My own rambling chronicle has indeed been quite as superficial as I promised. It would take much more time and much better facilities than I have had at command — not to speak of much profounder knowledge — to enable one to give a really complete picture, a really authoritative judgment, of modern architecture in so huge a town as this. But from what I have endeavored to appraise, that is, the general aspect of the most frequented quarters, and the general character of their most conspicuous and ambitious structures, the conclusion has forced itself upon me that the usual route of the travelling American student need by no means yet be altered so as to embrace Berlin. For, so far as I can guess, that which such a student chiefly seeks in modern work is the realization of new architectural ideas; not, of course, ideas which are new as being composed of novel elements, but new as adapting whatever elements are chosen to a thorough satisfaction of the novel requirements of to-day, and to a distinct expression of contemporary life on its practical and (if it has any) on its artistic side. And such architectural ideas seem to me very rare in Berlin; rare even as compared with the degree to which they prevail in other lands. Here, least of anywhere, where new needs are infinite, where money is lavishly spent, and where ambition is very lofty, does there seem any strong desire to wrestle with the fundamental problems of the art, to study a structure from the inside out, to think first of its *plan*, and next of how this may truthfully be expressed in its exterior; to make, in a word, the character and purpose of a building the *raison d'être* of its general effect, of its every feature, and of its entire decoration. I think we find a strong proof of this in the mere fact that in such a climate the roof is so entirely suppressed; a strong proof that structural composition is not rated at its due value either as the foundation of expression, or as the foundation of beauty either. Goethe once told his countrymen that they had "*no plastic power*," and I think he would not have reconsidered his dictum in Berlin to-day. The Anhalt Bahnhof is indeed one palpable exception to the rule (except with regard to its decoration), and I do not question that there may exist other exceptions in every department. But opposite examples are so conspicuous in their numbers, and so pronounced in their character that they indisputably *make* the rule. Hand in hand with all this goes what I may call the general *uninterestingness* of Berlin building both good and mediocre. This is a difficult quality to explain in words, though not a difficult one to recognize in fact. Perhaps I may say that I mean it as the quality which impresses one with the idea that knowledge, training, conscientious effort and conventional good taste may or may not have been brought in play, but that whether they have or not (and even though they *have* to a very eminent degree), such other factors have been lacking as freshness and vitality of mood, strength and individuality of feeling, fervor and genuineness of impulse on the artist's part; spontaneous architectural *imagination*, spontaneous artistic *instinct*. These are big words to use, I know. Spontaneity and vitality are nowhere common to-day; certainly not as combined with that scholarly skill and that sure judgment which alone really bring their results within the pale of *art*. But here more than in any other place I can recall where there has been any approach to so vast, so varied and so ambitious an activity, they seem to be conspicuously lacking. Here more than anywhere else does modern architecture seem not an ignorant, a careless nor an unexperimenting, but yet a cold, a labored and an unvital art, an art which is uninspired by any touch of imagination, enthusiasm, creative instinct; by any touch of that breathing, quickening, *human* quality which in every art (and whether the result in question be wholly successful or almost wholly unsuccessful, even) marks the difference between the interesting and the uninteresting, the difference, that is to say, between the created and the manufactured, the living and the dead.

M. G. van Rensselaer.

THE ILLUSTRATIONS.

[*Contributors are requested to send with their drawings full and adequate descriptions of the buildings, including a statement of cost.*]

PULPIT ON THE FRONT OF THE CATHEDRAL, PRATO, ITALY.

PRATO is a small town eleven miles northwest of Florence. It formerly belonged to Florence, and during the early Renaissance period was quite actively engaged in artistic work, attracting to itself several of the best Florentine masters, who have left a number of very interesting monuments in the style of the period. The Cathedral dates from the twelfth century, though finally completed by Giovanni Pisano two centuries later. It is in much the same style as the Pisa and Siena cathedrals, though falling far short of both in design. The façade, decorated in bands of colored marbles, dates from 1450. On one corner is the pulpit shown in the photoprint. It was designed conjointly by Michelozzo and Donatello, the latter of whom carved the exquisite bas-reliefs of dancing children. It is from this pulpit that the highly revered *sacra cintola*, or girdle of the Virgin, is exhibited for the comfort of the faithful. This girdle is said to be the identical band which the Virgin let down from heaven to convince the doubting Thomas. Over the principal entrance of the Cathedral is a large group by Andrea della Robbia, the Madonna with SS. Stephen and Lawrence. Inside there are some fine mural paintings by Agnolo Gaddi; frescoes by Fra Filippo Lippi, the finest work of this master; a handsome bronze screen, and a number of other art works, including a good round pulpit by Mino da Fiesole.

THE ANHALT RAILROAD STATION, BERLIN, GERMANY.

For description see the article on "Berlin and New York" elsewhere in this issue.

HOUSE FOR BERNARD KARZ, ESQ., PATERSON, N. J. MR. CHARLES EDWARDS, ARCHITECT, PATERSON, N. J.

SOME DOORWAYS IN AND ABOUT BOSTON.

SOUTH PORCH OF THE CATHEDRAL OF NOTRE DAME, ROUEN, FRANCE.[1]

THE JEFFERSON MARKET (THIRD DISTRICT) COURT-HOUSE, NEW YORK, N. Y. MR. F. C. WITHERS, ARCHITECT, NEW YORK, N. Y.

[Gelatine Print, issued only with the Gelatine Edition.]

A plan and description of this, which was voted one of the "best ten buildings" in this country, may be found in the *American Architect* for June 15, 1878.

SOME NEW JOURNALS.

Lion's Head, Grecian Sculpt. Temple at Metaponti.

BEFORE speaking of what we believe is the latest venture in art journalism, we have waited for several issues to appear in order to discover whether what promised to be a very welcome visitor seemed likely to fulfil its early promise. It seems like a hardy enterprise in these days to start a new journal of any kind when the field appears to be already crowded, but still they come, and it is surprising how many succeed in staying, and in this the monthly journal seems to have a much greater success than the weekly ones, or, again, than the daily newspapers, which seem to die as soon as they are born. We believe that this journal[2] will have little difficulty in maintaining a foothold, but whether it will do more than this will depend on many circumstances, some of which are within the control of its editor, and others are not. At present it is a journal whose interest lies wholly in its illustrations, which are admirably presented and are selected from various "sources" with much good judgment; and there is good reason to believe that the editor, as he becomes wonted to his work, will find it more and more easy to provide acceptable material if he escape on the one hand the error which brought disaster upon the, in many ways, attractive publication which Mr. Rinn undertook some years ago, and which makes the English journal *Decoration* so wearisome to those who see it; and if on the other hand he can avoid the fate which he seemingly invites, of becoming the exponent — exclusively — of those who disregard the "traditions and rules of their masters in the art." The efforts of the clever ones of the "new schools" are attractive and entertaining while they are fresh, but after a while they are as productive of æsthetic indigestion as would be the slight annual changes that a woman, once pretty, could make in the extravagantly fantastic head-dress that momentarily pleased the fancy of the lover of her younger days. As most of the illustrations of these early numbers are not the work of this inspired school we are spared that phantasmagoria of art which the editorial announcement seems to presage for the future.

[1] From Cotman's "*Antiquities of Normandy*."

[2] *Art and Decoration.* An illustrated monthly devoted to Interior and Exterior Ornament under the Art Management of George R. Holm and the Editorial Conduct of Caryl Coleman. New York: 1885.

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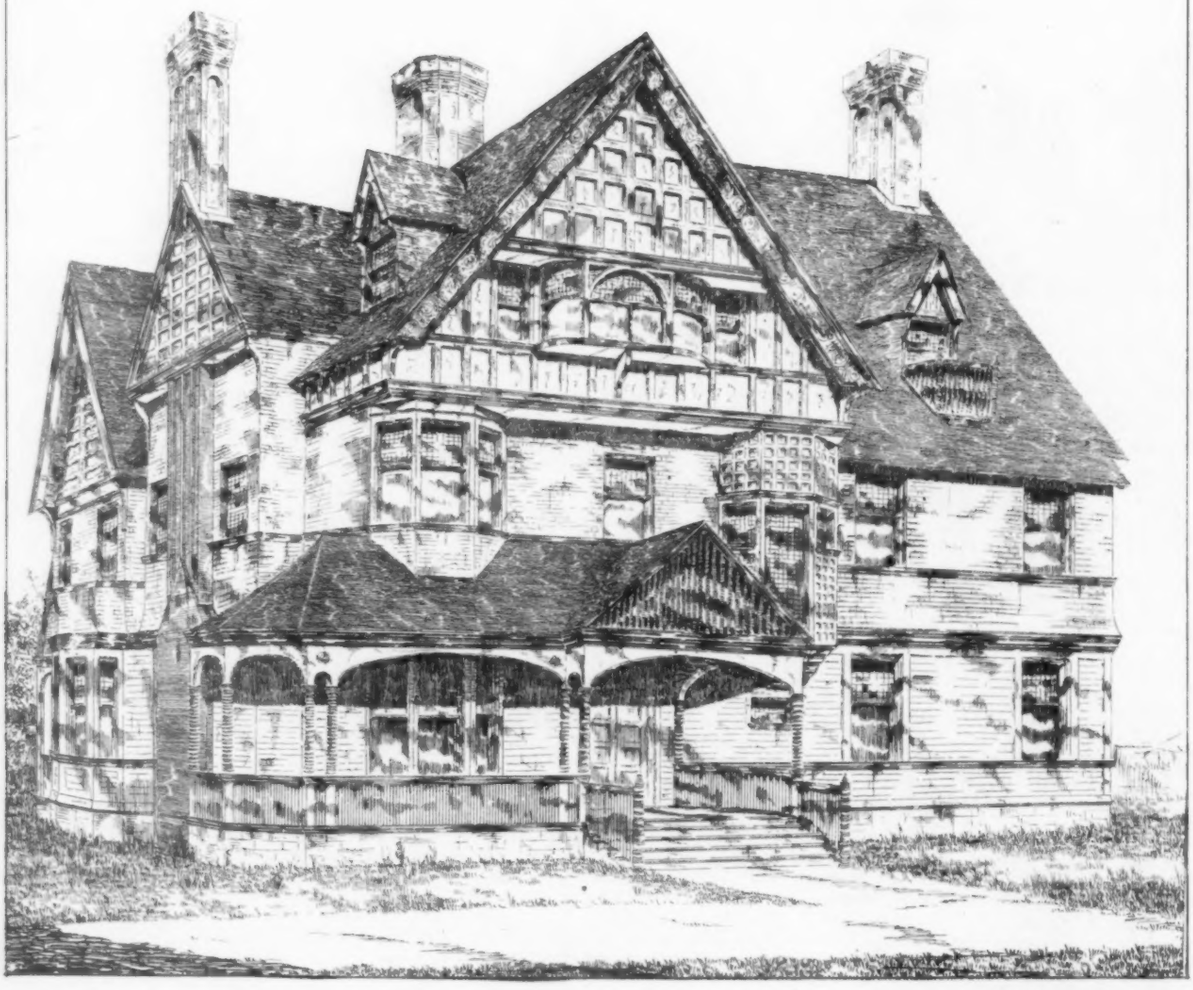
House of
Mr. Bernard Katz
Paterson
N. J.
Charles Edwards
Architect



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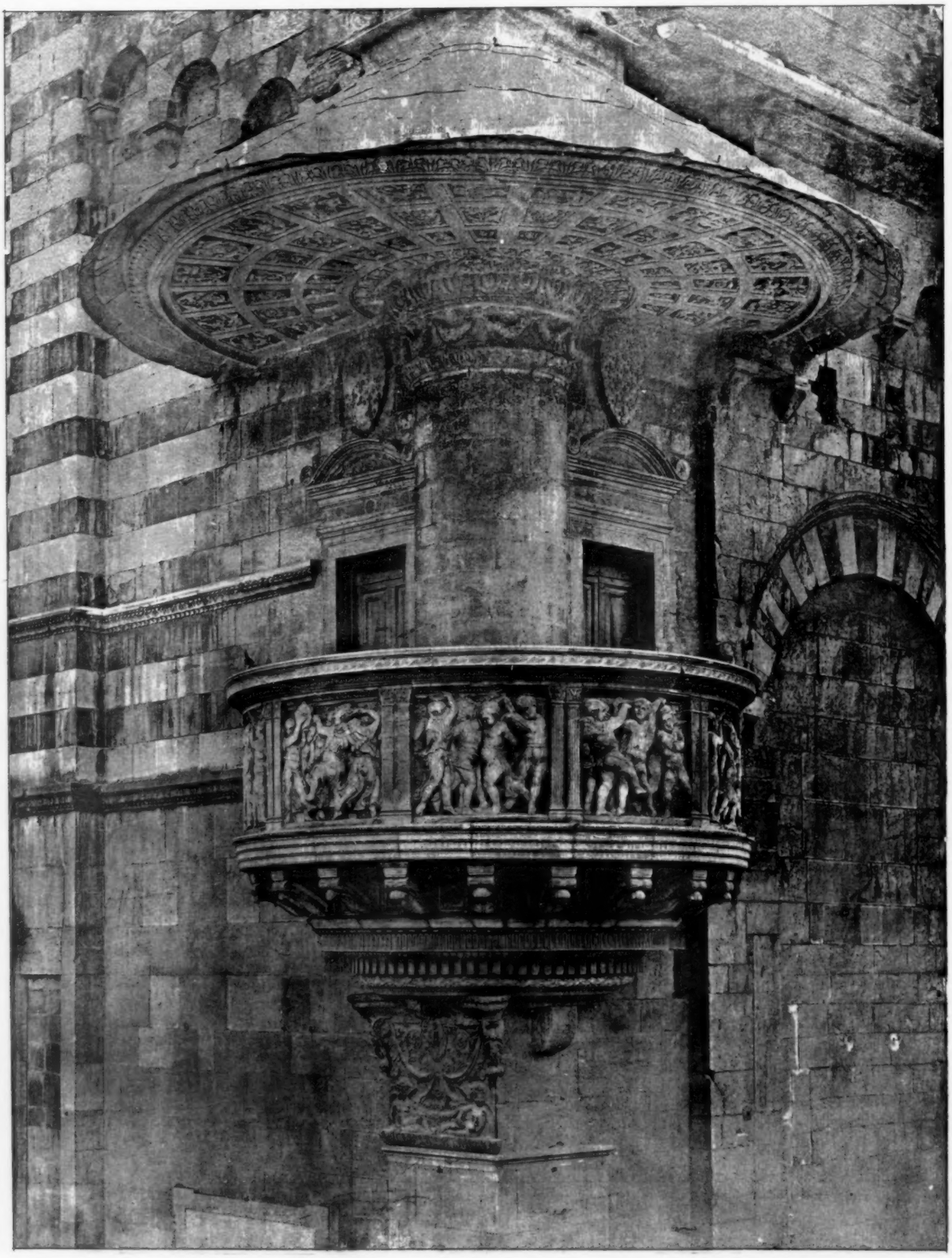

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Outside Pulpit on the Cathedral, Prato, Italy.

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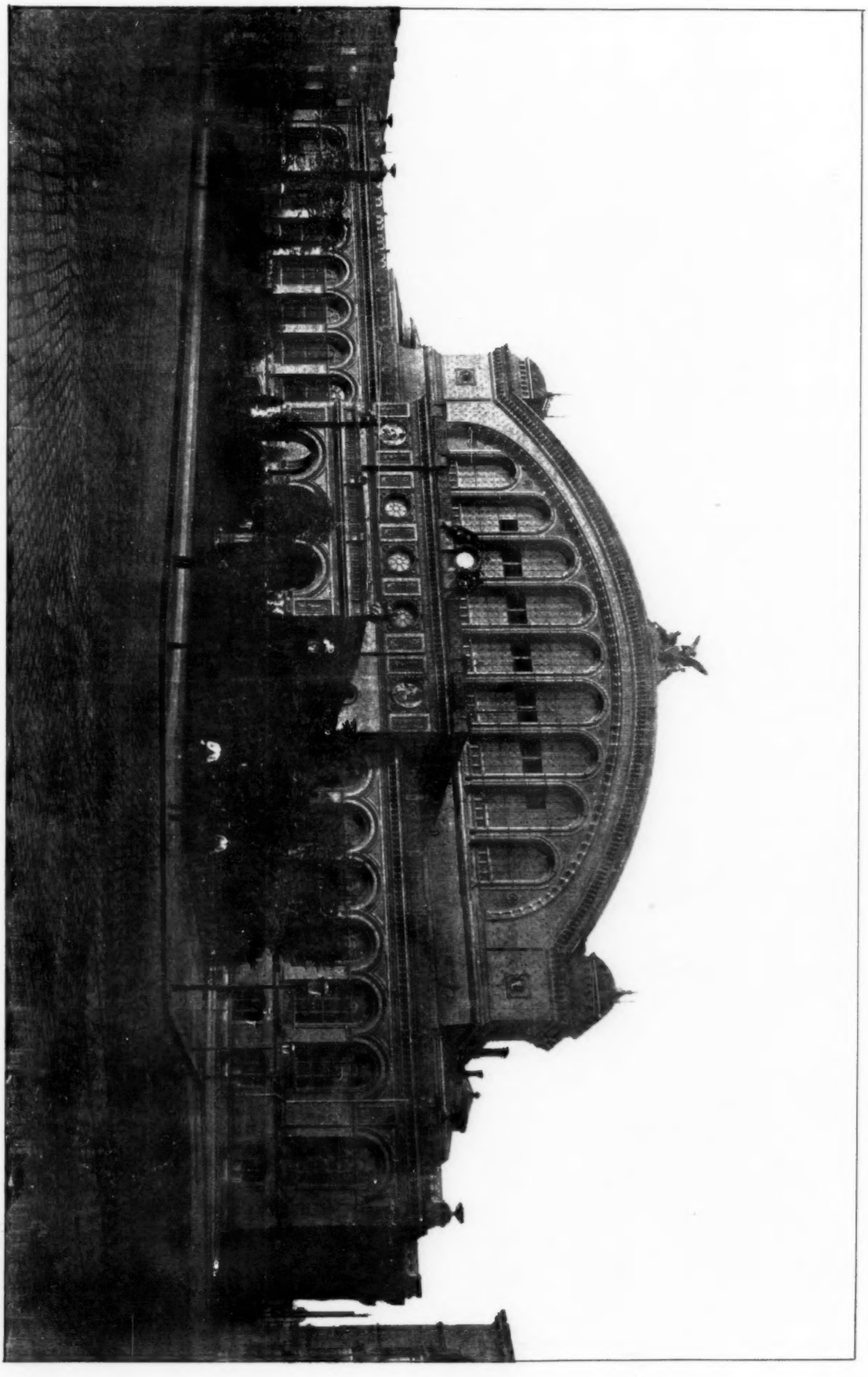

The Anhalt Railway Station, Berlin, Germany.

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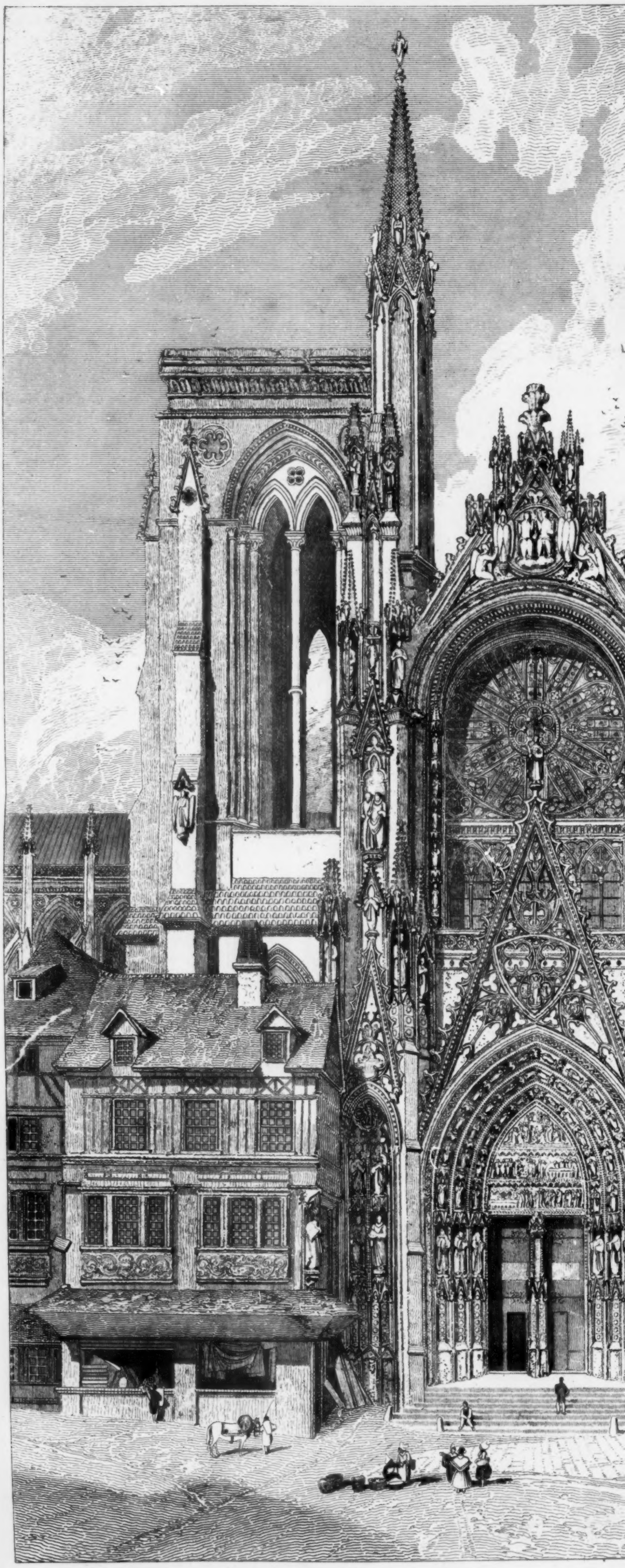

CATHEDRAL CHURCH OF NOTRE

South Transept from the Place de la Cité

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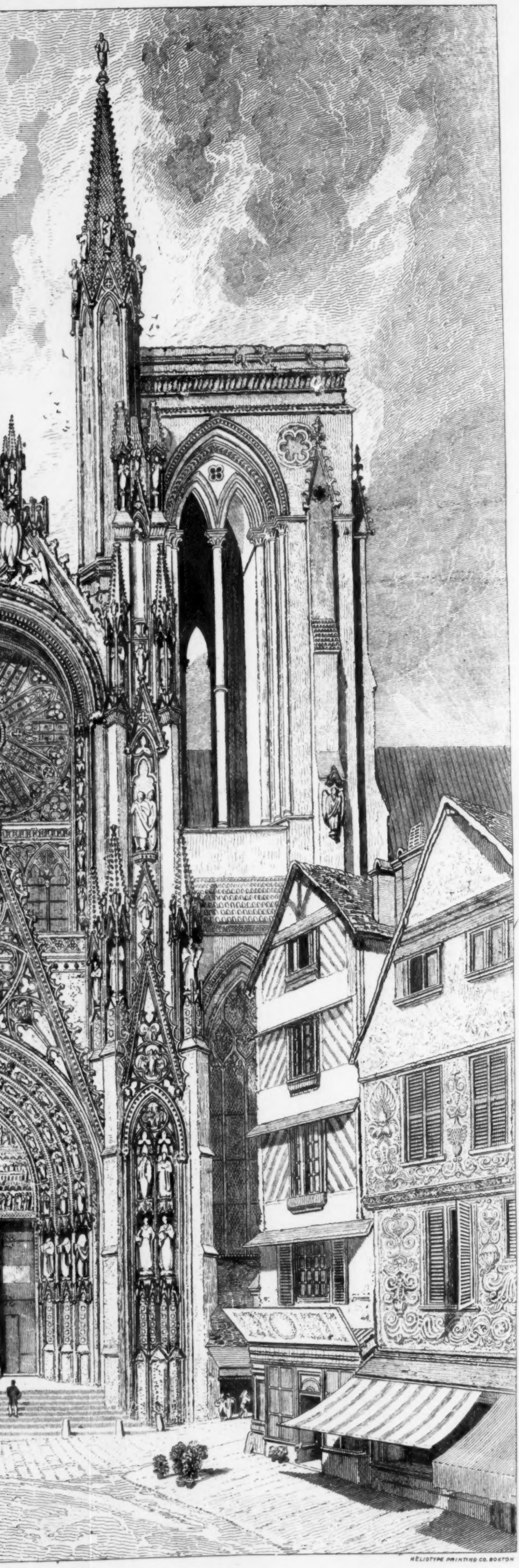

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NOTRE DAME, AT ROUEN.

e Place de la Calende

AMERICAN ARCHITECT AND BUILDING NEWS, JULY 25 1885 No. 500

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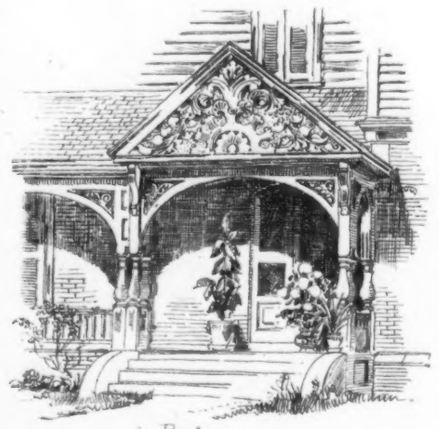
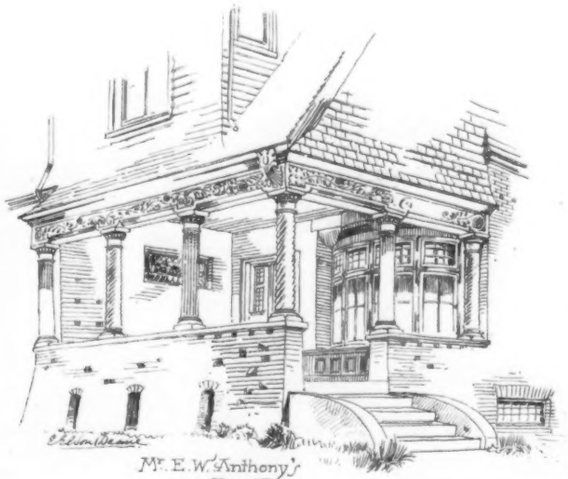
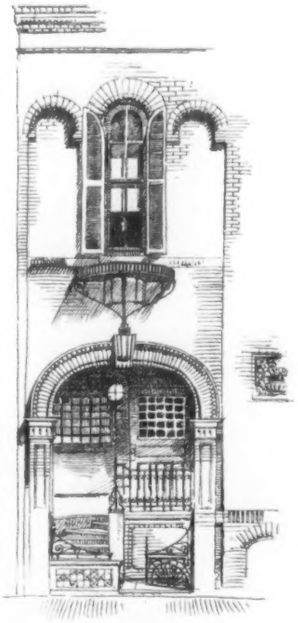


in Roxbury
Mr. J.H. Besarick. Archt



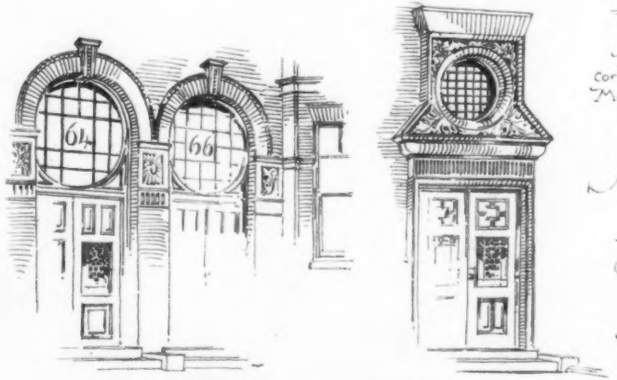
Mr. E.W. Anthony's
Brookline
Mr. E.A.P. Newcomb. Archt



Mr. Lowell's
Cor. of Fairfield & Marlboro' Sts
Messrs. Cabot & Chandler. Archts

The Kensington
Apartment House.
Boylston St.
Mr. Faxon. Archt

Boston Art Club.
Entrance on Dartmouth St.
Mr. W.R. Emerson. Archt



Trinity Terrace opp. Trinity Church.
Mr. W.R. Emerson. Archt

Sketches.

in & around

Boston.
Mass.

"Features."

Entrances.

Rev. Philip Brooks'
Clarendon St.
Mr. H.H. Richardson. Archt

HELIOTYPE PRINTING CO. BOSTON.

Blowing one's own trumpet is sometimes the only way of making a stir in the world, but this journal could easily have got along without so ill-advised a statement as that "our journal is the only art paper published in America receiving a large support from the young draughtsmen and architectural students." Such vainglorious boasting sounds, in the slang of the street, "too fresh."

Another journal[1] may have felt that we have been extremely dilatory in paying it the usual attention, but the fact is that as the first issue was issued with the unusual statement that it was a "precursory number," and so seemed to be put forth only as a feeler, we did not feel at all sure that it would have any successors, and their appearance amongst the mass of unopened "second class" matter on our tables escaped notice.

Here again the unexpected happens — a second journal appears soon after its predecessor has become fairly established, being inspired seemingly by the ineradicable human belief that where there is room for one there is for two. And yet the style and scope of the two journals are so different they may each successfully satisfy their "want." There is an indefinable something about this journal which makes one wonder why its editor does not give it the old-fashioned form of a quarterly review, which seems to offer a chance for playing a rôle which we believe has not been undertaken as yet. But from its evidently having been undertaken to promote in some degree the interests of the exhibitors at the Permanent Exhibit of Building Materials we suppose there is as usual a background of expected money-making through exploiting the wares of advertisers, who would be but ill-served by a quarterly publication. The distinctive feature is a plate showing two foreign subjects printed by an American photo-gravure process which falls far short of those excellencies which Goupil has educated us to associate with prints reproduced by this process.

Still another journal, of age too immature at the time to find a place in the Institute's "*Report on American Architectural Journals*," needs an introduction to our readers, though it will be obviously impossible for them to remember more than a fraction of its very comprehensive but cumbersome title;[2] but we will make the introduction before its proprietors add a new joint to it, a step which may be demanded by the new department which is to be incorporated in the journal henceforth — a department devoted to the "noteworthy monuments and mausoleums in our neighboring cemeteries." The issue before us contains two or three small sketches of local buildings, two or three portraits of local political officials, and a design for an equestrian monument to General Grant, in which the editors hope to create sufficient interest to ensure the contribution of the necessary funds. We trust that the enterprise may be successful and redound to the credit of our contemporary, but we also entertain the hope that when the sculptor actually begins work he will carefully determine the exact amount of "condition powder" that will secure the just amount of equine contortion that public taste demands: it seems useless to wantonly give too heavy a dose. The balance of the paper is filled with the usual complement of local notes connected with the several interests with which it concerns itself.

DECISIONS RELATING TO FIRE INSURANCE.[3]

PROBABLE AND IMPROBABLE RESULTS OF NEGLIGENCE.

Old English Chair

THE respondents brought this action against the defendant company to recover the value of certain personal property and of a dwelling-house situated in the city of Green Bay, which was destroyed by fire in September, 1880. The insurance company is a party plaintiff because it had insured the house and paid the insurance thereon, and in consideration of such payment Adkins had assigned to the insurance company his claim against the defendant company for the value of the house destroyed. The plaintiffs claim the right to recover upon facts set out in the complaint, showing that the property was burned by the carelessness of the persons in charge of one of the steamboats of the defendant company, whilst navigating the Fox River in the city of Green Bay. The negligence consisted in not having a spark-arrester attached to a steamboat of the company, in consequence of which sparks set fire to property on the shore, destroying, among others, the dwelling-house of Adkins. The evidence tended to show that the sparks emitted from the smoke-stack of said vessel were carried to the shore and kindled a fire in some shavings lying near a planing-mill, and thence to the mill, which was burned, as well as many other buildings, and from the sparks and brands of this burning district a second district was fired, some thirty-five hundred feet distant from the planing-mill, burning thirty-seven houses, Adkins' house being among them and the first to burn. On appeal it was

HELD — That the question of defendant's liability is one of fact for the jury, and not of law for the court. The question whether a result may or may not be expected to follow certain acts is material upon the question of negligence; that a person is not required to use that degree of care against an improbable result which he would be bound to exercise against a probable one. The defendant had the right to have submitted to the jury the question whether the result, which is the ground of action, might under the circumstances have been reasonably expected, not by defendant, but by a man of ordinary intelligence and prudence. Judgment reversed and remanded for a new trial.

Supreme Court of Wisconsin. — *Adkins and Phœnix Insurance Company* vs. *The Goodrich Steamboat Company.*

NO LIABILITY WHERE FIRE IS THE RESULT OF AN EXPLOSION.

This was a suit on a policy of insurance for the destruction of an insured building. The policy sued on contained a clause under which the insurer was not responsible for losses occasioned by explosion. The defence set up by the company in this case was that the loss was due to that cause alone, and refused payment. The evidence showed that by the explosion of the sugar-house boilers the building caught fire, which fire was apparently extinguished, but it broke out a second and a third time, within forty-eight hours after the explosion.

HELD — The existence of a fire as an effect of an explosion must be presumed to have continued as such an effect unless the contrary be proven. The insurer was released from liability for the destruction of the building.

Supreme Court of Louisiana. — *Janneret* vs. *Insurance Company.*

INCREASED RISK VOIDS THE POLICY.

A fire policy provided that if the premises should be occupied or used so as to increase the risk it should be void; and in the same clause the use of naphtha was prohibited, but in another clause it was stated that "the assured has permission to use naphtha in his business, but fire or lights are not permitted in the building, except a small stove in the office." In a suit on the policy, it was shown that some time after the policy was issued an eighteen-inch cylinder stove was placed and used in the finishing-room in the building, in which there was usually or frequently a large quantity of inflammable naphtha used. On this evidence the company defeated the action, and the plaintiff carried the case to the Supreme Court, where the company again prevailed.

HELD — No argument is required to show that this use of the building increased the risk, and the policy was thereby avoided.

Supreme Court of Connecticut — *Daniels* vs. *Equitable Fire Insurance Company.*

NON-OCCUPANCY VITIATES THE POLICY.

This was a suit by plaintiff to recover the insurance on a dwelling-house burned in April, 1881. Among the conditions in the policy issued by the company on this risk was one that the policy should become void "if the insured premises shall at any time be occupied or used so as to increase the risk, or become vacant or unoccupied, and so remain without notice to and consent of the company in writing." The house was vacant from January 1, 1881, and it was shown in evidence that the company had not been notified. At the trial of the court below, by direction of the court, a verdict for the defendant was returned, and the plaintiff thereupon alleged exceptions and took an appeal.

HELD — That the uncontradicted evidence at the trial showed that the house was vacant and unoccupied at and before the time of the fire, and therefore the policy was null and void.

Supreme Court of Massachusetts. — *Litch* vs. *North British, etc., Insurance Company.*

IN COURSE OF CONSTRUCTION AND OCCUPANCY.

This suit was brought against the defendant company to recover on a policy of fire insurance placed upon a building in course of erection. The application was made to B., an authorized agent of the company, for insurance upon a building in course of construction as a hotel; but the application stated that the building was occupied as a hotel, when in fact it was not occupied at all, but probably would have been before or soon after the issue of the policy. The application was accepted and a policy issued in accordance with the application, and the building was burned before it was completed. In the policy was a provisional clause stating that any misrepresentations or erroneous statements of the application which would affect the risk would render the policy void. On appeal, the court

HELD — That the company was bound by the acts of the agent, and his knowledge that the building was not completed was the knowledge of the company, and it was liable for the loss. That the issuing of the policy and receiving the premium by the company was a waiver of all violations of conditions of the policy, and it is thereby stopped from setting up such violation as a defense to this action.

Supreme Court of Iowa. — *Jordan* vs. *State Insurance Company.*

[1] *The Building Budget.* A Journal of Architecture and Kindred Arts. Issued from the office of the Permanent Exhibit and Exchange of Building Materials and Improvements. Chicago: 1885.

[2] *The Buffalo Builder and Real Estate Owner and Local Weekly Insurance Record.* 55 Chapin Block, Buffalo, N. Y.

[3] From "*The Insurance Year-Book*," 1885-6. Published by the *Spectator* Co., New York and Chicago.

CHANGE IN TITLE OF PROPERTY FORFEITS THE POLICY.

Edward Malley, merchant, of New Haven, insured his property, a condition of the policy being that if the property was sold or transferred, or any change took place in title or possession, the policy should be void. He subsequently admitted William Neely to partnership, and the firm became known as Edward Malley & Co. Neely was to have furnished ten thousand dollars capital to the firm within the first year, which was not done, and the plaintiff held that the partnership had not been completed in consequence. The store and property insured were destroyed by fire and defendant refused payment.

Held — The terms of the agreement entered into between Malley and Neely constituted the latter a partner, regardless of the payment of the ten thousand dollars, and the new firm entered into possession of the partnership property which was destroyed. This constituted such a change of interest as forfeited the policy.

Supreme Court of Connecticut. — *Edward Malley* vs. *Atlantic Fire and Marine Insurance Company.*

WARRANTY BY DESCRIPTION AND DIAGRAM.

The insurance on a planing-mill was procured by a broker who used a written application made several years before to another company, which contained also a diagram showing a ground plan of the mill and adjacent buildings. The agent made a synopsis of this application, annexing a copy of the diagram and a description of the property. This synopsis was used by the agent's companies as a basis for their policies.

Held — That the diagram purported to show only the location of the buildings represented on it, and there was no misrepresentation or breach of warranty in the existence of facts which it failed to show, when the insured was only required to show the facts so far as they were material to the risk, although it also covenanted to be a full and just exposition of all the facts, unless the omitted facts were material. A representation that there was no planing-machine on the premises is not falsified by the existence of such a machine in an adjoining building not included in the policy. When a question in the application is not answered, a failure to inquire further is a waiver of answer by the insurer. The original application represented that there was no mortgage, but a mortgage had subsequently been given. The misrepresentation voided those policies issued on the basis of this application, where there had been no waiver. The knowledge of the agent of certain of the companies concerning the mortgage was a waiver of the misrepresentation.

U. S. Circuit Court, Northern District of New York.—*Mulville* vs. *Adams.*

MISDESCRIPTION OF PROPERTY VOIDS THE POLICY.

This action by the appellant was defended by the appellee company on the ground of misdescription of the building by the applicant in his application for insurance thereon. The facts as shown by the evidence were that the property to be insured was mentioned as a "story and a half-story, hard finished" boarding-house building; "that the lower story only was hard finished, and the half-story above was finished by what is known as cloth finish." On appeal it was

Held — That this was a misrepresentation of a material fact which voided the insurance.

Court of Appeals, New York. — *Jackson* vs. *Fire and Marine Insurance Company.*

NON-OCCUPANCY VOIDS THE POLICY.

This was an action by George Wells against defendant company on a policy of insurance against loss by fire, to recover five hundred dollars, the amount of risk taken on a certain dwelling-house of the plaintiff, which was wholly destroyed by fire, during the period for which the policy was written. At the time the policy was written the dwelling therein described was occupied by a tenant, under a lease for one year beginning on March 1, 1880. On October 5, 1880, said tenant with his family removed from the dwelling-house, taking away his goods, etc., without any intention of returning, leaving in the house a barrel containing some bran and a coal-oil can. During the same night the house was burned. The owner was ignorant of the fact that the tenant had left the house. The policy attached to the petition in the case contains a condition that the policy shall be void "if the building herein mentioned be vacant or left unoccupied." The defendant company alleged that "at the time said house was burned, and for some time prior thereto, it was left, and without the knowledge or consent of the defendant company, wholly vacant and unoccupied." To this answer plaintiff entered a denial. Among his contentions was one that the presence of the barrel and can left in the house constituted continued occupancy. The verdict and judgment were rendered for the plaintiff, which judgment on petition in error was affirmed by the district court. On appeal to the Supreme Court it was

Held — That an absolute condition in a fire insurance policy on a dwelling-house, that the policy shall be void "if the building insured be vacated or left unoccupied," voids the policy, although the vacation of the house resulted from the permanent removal of the tenant of the insured during the running of his lease, without the knowledge or consent of the landlord. Also that the building was insured as an occupied dwelling-house; that the parties to the contract were competent to make a stipulation that said building was to continue to be occupied; that the leaving behind the barrel of bran and oil-can did not prevent the avoidance of the policy; that the house had ceased to be occupied as a dwelling, and that the length of time elapsing after the vacation and before the fire is wholly immaterial. Judgment reversed and cause dismissed.

Supreme Court of Ohio. — *Farmers' Insurance Company, Appellant* vs. *Wells, Appellee.*

ATMOSPHERIC HUMIDITY.

THERE is yet another gaseous element of the atmosphere which is absolutely universal, although the amount which is present varies immensely under different conditions. This is watery vapor.

Although this vapor is invisible, we are constantly being reminded of its presence. The moisture that condenses on the cool window-panes of a crowded room, or that dims the surface of the tumbler of iced water which one may be lucky enough to get at some suffocative dinner, are among the every-day evidences that watery vapor is present in the air, and ready to condense.

Air is only capable of keeping a certain definite amount of watery vapor in an invisible condition. For equal barometric pressures the amount varies with the temperature. The higher the temperature, the greater is the amount of vapor which the air will hold invisible. At a freezing temperature each cubic foot of air will hold just over two grains of watery vapor, while at a temperature of 100° Fahr. the amount which the air will retain is close upon twenty grains, or ten times as much. These figures are not precisely accurate, but they are near enough for our purpose, and are easily remembered. When the air contains its maximum amount of watery vapor (an amount which increases with the temperature) it is said to be saturated, and if saturated air be cooled the moisture is deposited in the form of dew.

Rain, in like manner, is caused by the cooling of air saturated with moisture.

According as the moisture in the air falls short of saturation, so is its drying power, and its power of causing the evaporation of fluids. If complete saturation be spoken of as 100°, then the relative humidity of the air may be stated as a percentage of the maximum. Let us suppose that a cubic foot of air contains 50 per cent of watery vapor. If the temperature of the air be 32° Fahr., then we shall know that each cubic foot (containing fifty per cent of its maximum) holds about one grain of watery vapor, and is capable of drying up a second grain. If the temperature of the air, however, be 100° Fahr., we shall know that each cubic foot (containing 50 per cent of its maximum) holds about ten grains, and that the drying power of each cubic foot is equal to another ten.

Now it is important to bear in mind that although the air in both these imagined instances has a humidity of 50 per cent, yet the drying power is ten times greater at the higher temperature.

Since the drying power, *i. e.*, the power of causing evaporation, is that which exercises most influence on our health and comfort, it follows that humidity must always be considered in conjunction with temperature. When the drying power of the air is great, the evaporation of fluid from our skins and lungs is great. When the drying power of the air is small, the evaporation of moisture from the skin and lungs is small also. It follows from this that dry air is often of great use to persons suffering from what are known as chronic catarrhal conditions of the respiratory passages (throat, nose, windpipe, and bronchial tubes). The moist, mucous surfaces of these parts are, as it were, dried up by the dry air which is drawn over them, and the sufferings of the invalid are greatly lessened.

As regards the effect of the drying power of the air upon the skin, it is quite impossible to consider it apart from the question of temperature, because the amount of perspiration to be evaporated depends mainly upon the temperature (exercise being left out of consideration), and hence it follows that the amount of perspiration to be evaporated may be ahead of the drying power of the air. Hence it is not possible to consider the effect of drying power on the skin apart from the question of temperature, and we must therefore defer it until we come to talk of temperature.

The moisture in the air is due to the evaporating power of the sun. The heat of the sun is constantly raising water in the form of vapor; just as the water in a boiler is changed to vapor by the glowing fuel. In tropical regions the amount of water which is changed to invisible vapor is prodigious, but the evaporation in temperate climates is also very great, for it must be remembered that this

[1] From a lecture on "Climate in its Relation to Health," read before the Society of Arts by G. V. Poore, M. D., and published in the *Journal* of the Society.

evaporation goes on so long as the moisture in the air falls short of saturation.

The watery vapor in the air is of the greatest importance from a meteorological, and, therefore, indirectly from a climatic point of view. Mr. Scott, in his work on the "*Elements of Meteorology*," thinks that the distribution of moisture in the air is very local, and depends, to a great extent, on the proximity of free water surfaces to supply the moisture. It is, therefore, great in the air over tropical seas, slight in the air over extensive tropical deserts. The amount of moisture is generally more or less in direct relationship with the temperature. The dryness of the air during a Canadian winter is well known. The water is, to great extent, locked up in solid form, and the evaporating power of the air is slight, and hence the dry, crisp atmosphere, of the pleasures of which we hear so much. The amount diminishes as we ascend in a degree rather more than proportionate to the fall of temperature. The air of high mountains is relatively dry, but the degree of moisture follows no regular law, and it has been observed by balloonists, as well as mountaineers, that in ascending to great heights, strata of air of varying degrees of moisture are passed through.

The watery vapor ever present in the air acts like a garment to the earth, an invisible robe protecting the surface of the earth, on the one hand from the scorching influence of direct solar radiations, and on the other hand preventing, to a great extent, the radiation from the earth itself, and the too rapid loss of heat when the sun goes down.

Like our own garments, the invisible watery garment of the earth moderates the heat and cold, and tends to produce equability of climate. In situations where the moisture in the air is slight, the extremes of temperature are excessive, as in flat sandy deserts, and on mountains; the heat of the sun in these situations being in striking contrast to the bitter cold of the nights.

The watery vapor ever present in the air may become visible. Were I to bring a glass of ice-cold water into this room, its surface would be dewed with moisture, because the air in contact with the glass being suddenly chilled, its capacity for moisture is lessened, and a part of it is deposited.

When the surface of the earth is suddenly chilled by radiation, dew is in like manner deposited from the strata of air in contact with it. When a clear night succeeds a hot summer day, the deposit of dew is always (in this climate) very large. Dew, it will be noticed, is always most abundant on grass and herbage, on the leaves and stems of trees, on wood and metal work, etc., while it is not present on gravel walks and in dusty roads. Dew is, in short, deposited on those bodies which lose their heat most readily by radiation.

The heaviest fall of dew which it has been my lot to witness was on a winter's morning in January, on board a yacht off Cagliari, in the Island of Sardinia. I was roused about half-past seven by the pattering, as I thought, of heavy rain upon the deck, but on going on deck I found that the shower was exceedingly local, being produced by the deposit of dew upon the high spars and rigging of the yacht, and its subsequent descent upon the deck in a heavy shower. The power of the sun on the previous day had been very great, and had raised much vapor from the sea, and this moisture-laden air being cooled by contact with the cold spars and rigging, discharged its moisture in the manner related.

Humboldt has recorded how, in some of the forests of South America, the traveller on entering a wood finds, apparently, a heavy shower falling, whilst overhead the sky is perfectly clear. The formation of dew takes place on the tops of the trees, and so copiously, owing to the abundance of vapor in a tropical atmosphere, that a real shower of rain is the result.

Fogs and mists are due, it is now generally supposed, to the condensation of moisture on the infinitely fine particles which are always suspended in the air. If the air be absolutely free from dust, watery vapor forms no mist, but the presence of solid impurity determines a fog. For the formation of fog three things are necessary: —

1. The cooling of moisture-laden air.

2. Calm weather, so that the mist is not blown away as soon as formed.

3. Solid matter in the air.

When in winter the south-east wind blows, bringing moisture-laden air from the German Ocean and the Channel, up the estuary of the Thames, and when this moist air comes in contact with the cooler air of London, charged with solid impurity to an enormous extent, a London fog is the result. The fogs of Newfoundland are due to the chilling of moist air by coming in contact with a surface of water cooled by melting ice.

Most of the water evaporated from the surface of the salt and fresh waters of the globe returns to the surface in the form of rain.

Rain is produced by the chilling of air more or less charged with moisture. Near the equator the hot air charged with moisture rises into the cooler regions of the atmosphere, and descends again as rain, and in torrents of which we have no knowledge in these latitudes. Air which has traversed a large tract of sea, like that which comes to us from the south and west from off the surface of the Atlantic, is charged with moisture. As it strikes against the precipitous hills of our western coasts, it is chilled by the colder land, and, at the same time, is driven upwards by the conformation of the hills, and the result is that the moisture is deposited in the form of rain. Hence it follows that the southwest corner of Ireland and the western coast of England and Scotland are the wettest parts of the British isles, and in great contrast to the eastern coasts.

The wettest parts of the globe are those where winds blowing from tropical seas strike against the chilled tops of high mountains, and probably there is no place with greater rainfall than the district which lies at the eastern extremity of the Himalayan mountains, where the rainfall is said to amount to as much as four hundred inches a year.

Winds laden with moisture lose it at the first opportunity. Thus the southwest winds in this country cause heavy rainfalls on our western coasts, amounting to as much as one hundred and fifty inches per annum in some parts of Cumberland. The winds, thus dried by a fall of rain, can cause but little rainfall elsewhere, so that on our eastern coasts the rainfall is not more than twenty inches.

The centres of great continents are necessarily dry. The middle of Australia, Sahara, in the centre of Africa, and parts of Central Asia, are among the driest regions of the world.

What are the effects of moisture and dryness?

It is a well-known fact that when water is evaporated and turned into invisible vapor, that a certain amount of heat becomes latent, as it is termed, and cold results. When, on the other hand, watery vapor is condensed and becomes liquid, the latent heat is given out, and hence rain has a great power of warming the air. Professor Haughton has calculated that, on the west coast of Ireland, the heat derived from the rainfall is equal to half that derived from the sun.

The presence of rain-clouds has, of course, a great influence on the temperature of a district, as, by obstructing the sun's rays, they prevent the heating of the surface.

On the other hand, clouds equalize the temperature by preventing radiations of heat after sunset. Cloudless nights are cold nights, because of the comparatively unobstructed radiation. These are the nights when the gardener covers up his tender plants, and looks to his greenhouse fires. Cloudy nights, on the other hand, are warm.

Rainfall has a very purifying influence on the air, by washing it of its solid and some gaseous impurities. Who has not watched a thunder-shower after a spell of dry weather in London, in July or August? Previous to the shower the air is oppressive, and has a smoky, ammoniacal smell, and the wooden pavements, kept moistened by the watering-carts, smell like a stable. With the first drops of the shower, "blacks" as big as blue-bottle flies are driven downwards from the upper strata, these diminish as the shower continues, and soon the air smells fresh and wholesome.

As to the effect of moisture upon health, not very much is known. Rainfall purifies the air, and if it be not sufficient to prevent exercise it apparently does no harm. When the air is hot and moist, so that evaporation, with its consequent cooling, cannot be effected on the skin, it is very oppressive. Moist air is most grateful to persons with dry chronic coughs.

There is one way in which moisture affects health, and which has been not much considered hitherto, and that is the effect which it has on the process of decay and putrefaction. Putrefaction, as is well known, is favored by warmth and moisture, and is checked by cold and dryness. Warmth and moisture for the most part favor the growth of bacteria and other allied micro-organisms, some of which are definitely known to be directly connected with epidemic disease, while cold and dryness check them.

Parkes ("*Practical Hygiene*," page 37) remarks: —

"The spread of certain diseases is supposed to be intimately connected with the humidity of the air. Malarious diseases, it is said, never attain their fullest epidemic spread, unless the humidity approaches saturation. Plague and small-pox are both checked by a very dry atmosphere. The cessation of bubo plague in Upper Egypt after St. John's day has been considered to be more owing to the dryness than to the heat of the air.

"In the dry Harmattan wind on the west coast of Africa, small-pox cannot be inoculated, and it is well known with what difficulty cow-pox is kept up in very dry seasons in India."

If infective disease be due to organisms, and if the growth of these organisms depends upon conditions similar to those that regulate the activity of putrefaction and fermentation — facts in which there is a daily increasing belief — then we must come to the conclusion that dryness and cold both check one class of diseases, and that the biting dry east winds in this country, and the much-abused northwest wind which is known as the mistral in the south of France, are, although pitiless, and indeed often deadly to the sick and weakly, among our best friends from the point of view of health.

From the point of view of exercise and comfort, the absolute annual rainfall of a district is of less importance than the number of rainy days per annum. There is no necessary relationship between the annual rainfall and the number of rainy days; in fact, they often bear an inverse proportion to each other.

If we propose to visit a particular spot in search of outdoor exercise, pleasure, and health, this point of the number of rainy days to be expected is one of very great importance. Thus, at Valentia, on the west coast of Ireland, with a very mild even temperature, some 235 wet days per annum may be expected. According to Hassall, who is quoted by Weber, there is, at Torquay, an average rainfall of 36 inches, with 200 rainy days; at Ventnor, 34 inches, with 174 rainy days; at Cannes, 35 inches, with only 70 rainy days; at Bournemouth, 28 inches, with 156 rainy days; and at San Remo, 28 inches, with only 48 rainy days.

Although I have no doubt these figures give a fairly correct notion

of the relative raininess of the places mentioned, we must, nevertheless, be careful how we build our hopes upon average numbers. The average is sometimes calculated upon too small a number of years. Sometimes the years upon which the average is calculated are, so to say, picked, and the calculation, actuated by local bias, has begun with the year after, and stopped short of a year when some extreme number has been reached. Even supposing that the averages are in every way just, we must still remember that there are extremes as well as means, and we may have the bad fortune to visit a spot with a dry reputation and get a daily drenching. Such was my luck at San Remo, in the month of February, 1883.

TAR STAINS.

Washington, D. C.

To the Editors of the American Architect: —

Dear Sirs, — What will take out stains of pitch tar thrown on a brick wall by careless roofers, so that when the wall is painted it will not be defaced by the stain coming through? By giving answer in your next edition of the *American Architect* you will oblige very much one of your old subscribers. A. Pauli, Architect.

[We are told that the best way to remove the stains is to scrape off as much as possible of the tar droppings and then apply coal-tar oil — as light-colored as it is possible to get. A thorough scrubbing with the oil will remove the tar, unless it has fallen on a painted surface: in this case to apply coal-tar oil would be simply to increase the mischief. — Eds. American Architect.]

AN ECHOING ROOM.

Clinton, Iowa.

To the Editors of the American Architect: —

Dear Sirs, — I want some information on curing halls and court-rooms from echoes. Can you refer me to any book kept by you or others that treats of the laws of sound? I have heard of treating rooms with wires, with sounding-boards, with panel-work, etc. My problem now is a circular room 52 feet in diameter and 23 feet high; it echoes badly. Awaiting an answer, either by letter or in the *American Architect*, I am, yours truly, W. W. Sanborn.

["*The Acoustics of Public Buildings*," by T. Roger Smith, published in Weale's (Lockwood's) Series, to be obtained through any bookseller for about $1.50, is the most practical work on the subject. Wires are chiefly useful for cutting off recesses which give local echoes. We should say that the way of curing the circular room lay in the direction of breaking up the wall-surfaces with pilasters, of considerable projection, and perhaps hanging cloth in the panels so formed. — Eds. American Architect.]

NOTES AND CLIPPINGS.

The Geology of Natural Gas. — Mr. I. C. White, a leading geologist, after a visit to the great gas wells struck in Western Pennsylvania and West Virginia, found that every one of them was situated either directly on or near the crown of an anticlinal axis, while wells that had been bored in the synclines on either side furnished little or no gas, but in many cases large quantities of salt water. Further observation showed that the gas wells were confined to a narrow belt, only one-fourth of a mile wide, along the crests of the anticlinal folds. These facts, Mr. White says, in science seemed to connect gas territory unmistakably with the disturbance in the rocks caused by their upheaval into arches, but the crucial test was yet to be made in the actual location of good gas territory on this theory. During the last two years Mr. White has submitted it to all manner of tests, both in locating and condemning gas territory, and the general result has been to confirm the anticlinal theory beyond a reasonable doubt. But while he claims that he can state with confidence that all great gas wells are found on the anticlinal axes, the converse of this is not true, viz., that great gas wells may be found on all anticlinals. In the theory of this kind the limitations become quite as important as, or even more so than, the theory itself, and hence he has given considerable thought to this side of the question, having formulated them into three or four general rules which include, practically, all the limitations known to him up to the present time that should be placed on the statement that large gas wells may be obtained on anticlinal folds, as follows: (*a*) The arch in the rocks must be one of considerable magnitude. (*b*) A coarse or porous sandstone of considerable thickness, or, if a fine-grained rock, one that would have extensive fissures, and thus in either case rendered capable of acting as a reservoir for the gas, must underlie the surface at a depth of several hundred feet (500 to 2500 feet). (*c*) Probably very few or none of the grand arches along mountain ranges will be found holding gas in large quantity, since in such cases the disturbance of the stratification has been so profound that all the natural gas generated in the past would long ago have escaped into the air through fissures that traverse all the bed. Another limitation might possibly be added, which would confine the area where great gas flows may be obtained to those underlaid by a considerable thickness of bituminous shale. Very fair gas wells may also be obtained for a considerable distance down the slope from the crest of the anticlinals, provided the dip be sufficiently rapid, and especially if it be irregular or interrupted with slight crumples. And even in regions where there are no well-marked anticlinals, if the dip be somewhat rapid and irregular, rather large gas wells may occasionally be found if all other conditions are favorable. The reason why natural gas should collect under the arches of the rocks is sufficiently plain from a consideration of its volatile nature. Then, too, the extensive fissuring of the rock, which appears necessary to form a capacious reservoir for a large gas well, would take place most readily along the anticlinals, where the tension in bending would be greatest. The geological horizon that furnishes the best gas-reservoir in Western Pennsylvania seems to be identical with the first Venango oil-sand, and hence is one of the Catskill conglomerates. This is the gas rock at Murraysville, Tarentum, Washington, Wellsburg, and many other points. Some large gas-wells have been obtained in the subcarboniferous sandstone (Pocono), however, and others down in the third Venango oil-sand (Chemung). In Ohio, gas-flows of considerable size have been obtained deep down in the Cincinnati limestone, while in West Virginia they have been found in the Pottsville conglomerate; hence natural gas, like oil, has a wide range through the geological column, though it is a significant fact that it is most abundant above the black slates of the Devonian. — *The Iron Age.*

Milk Paint. — It is said that when old Green Hill Protestant Episcopal church, on the Wicomico River, was built, in 1733, the people drove their cows to the building, milked them, and with the milk mixed the red ochre with which the pews were painted. The color still remains. The effort to restore the old church has taken a practical shape, and will be successful if its friends promptly respond to the appeals made in its behalf. — *Baltimore Sun.*

Petrified Wood. — The petrified wood found in the Rocky Mountain regions is rapidly becoming utilized. In San Francisco there is now a factory for cutting and polishing these petrifactions into mantle pieces, tiles, tablets and other architectural parts for which marble or slab is commonly used. Petrified wood is said to be susceptible of a finer polish than marble or even onyx, the latter of which it is driving from the market. The raw material employed comes mostly from the forest of petrified wood along the line of the Atlantic & Pacific Railway. Several other companies have also been formed to obtain concessions of different portions of these forests. Geologists will regret the destruction of such interesting primeval remains, and some steps ought to be taken to preserve certain tracts in their original state. — *Exchange.*

The Deepest Bore-hole. — The deepest bore-hole in existence, according to a paper read by Herr Mohs before the Magdeburg district association of the Society of German Engineers, is that reached in borings for coal near the village of Schladebach, on the railway between Corbetha and Leipzig, which have been made for some time in that locality at the instance of the Prussian Mining Department. The total depth of this bore-hole which has been driven with a hollow diamond-pointed rock-drill and water flushing, is 4559 feet. Its diameter at the bottom is 1.872 inches, and at the surface 11 inches. Boring operations have been carried on for three years and a half, and a sum of £5000 has been spent in reaching the depth attained. The temperature in the lower portion of the bore-hole was found to be 48° C., equal to 118.4° F. — *The Iron Age.*

Enduring Stair Treads. — What will withstand the tread of many feet and will for long continue to afford a firm foothold? The iron treads of the stairways, leading to the stations of the elevated railways in New York, became dangerously smooth and wore away rapidly. After tests with various materials, which were placed on successive steps of the same stairway, a rubber covering containing rungs of iron was selected as best suited for the purpose. The hard slate upon the stairways to the suspension bridge between New York and Brooklyn, has worn away so rapidly that it has been necessary to cover them with wood, which can easily be removed as the wear renders a new tread necessary. A wood mosaic composed of blocks of maple cut across the grain, is frequently used in vestibules of public buildings and in passenger elevators in place of ceramic tiles. The wood is rendered still more durable by boiling in linseed oil under pressure, until the pores are thoroughly impregnated with the oil which dries after boiling. — *Engineering.*

Two Similar Legends. — *St. James' Gazette* recalls pleasantly the oft-told story of the wooden image in Sené. From all the country round young girls pay a visit to the image for the purpose of sticking a pin into it. It is pretty well decayed by this time, and how many thousands of pins have been hopefully and yet fearfully driven into it no man can tell. If the wooden image had been a living man he would have died long ago of his many wounds. Those pins mean marriage; hence the earnestness with which they are contributed. They must be driven well into the wood, for if they fall out the betrothal will prove a failure. If they stay, however, the marriage will take place within a year. It must also be a strong pin, for if it bends in the driving the husband will be a hunchback or a cripple. We may laugh if we will, but if a wooden image of that sort were set up in this country, it would probably have all the pins it wanted, and some to spare. It is a foolish superstition, doubtless, but young girls like to be on the safe side in such matters. — *New York Herald.*

On the water side of Vera Cruz stands a stone image, whose bruised countenance tells a queer tale of feminine credulity. From time immemorial it has been believed that if a marriageable woman shall hit this image squarely in the face with a stone, she will immediately obtain a husband and an advantageous settlement in life. The inventor of the fable was evidently acquainted with the fact that women are not expert in throwing stones. Were it not for this lamentable disability the poor image would have been totally demolished years ago. As it is, the battered face has lost all semblance of features, and heaps of small stones, lying all about, attest the industry of the Mexican maidens, as well as their good sense in desiring matrimonial settlement. The tumble-down church, behind which it stands, has a remarkable number of female attendants, especially at vesper services. The homeward path lies directly past the image, and many a pebble is slyly tossed under the friendly shadow of the gloaming by women, young and old. — *Fannie B. Ward, in New York Sun.*

BUILDING INTELLIGENCE.

(Reported for The American Architect and Building News.)

[Although a large portion of the building intelligence is provided by their regular correspondents, the editors greatly desire to receive voluntary information, especially from the smaller and outlying towns.]

BUILDING PATENTS.

[Printed specifications of any patents here mentioned, together with full detail illustrations, may be obtained of the Commissioner of Patents, at Washington, for twenty-five cents.]

320,905. CLAY-CRUSHING MACHINE.—Frank Alsip and Chester T. Drake, Chicago, Ill.

320,918. SEWER-TRAP.—Louis Fall, Lima, O.

320,920. SCREW-DRIVER.—Nathaniel W. Farrand, Westfield, N. Y.

320,931. BEVEL-SQUARE.—Jonathan O. Grover, Lynn, Mass.

320,942. STONE-DRESSING MACHINE. — Jonathan Mann, Milton, Mass.

320,944. BRICK-MACHINE.—Henry Martin, Lancaster, Pa.

320,950. WATER-SUPPLY APPARATUS FOR WATER-CLOSETS.—Timothy McHugh, Boston, Mass.

320,974. FIRE-PROOF SHUTTER.—Charles C. Schreiber, Cincinnati, O.

320,979. FLEXIBLE ROOFING-TILE.—Lexor B. Snow, Cleveland, O.

320,990. PORCELAIN WATER-CLOSET BOWL.—Richard H. Watson, Philadelphia, Pa.

321,055. SASH-FASTENER.—William Robinson, Chicago, Ill.

321,081. DOOR-HANGER. — Chas. W. Bullard, Chicago, Ill.

321,109. CALCIMINE. — Karl A. Hohenstein, Brooklyn, N. Y.

321,120. ART OF MANUFACTURING PORTLAND CEMENT. — Robert W. Lesley and David Griffith, Egypt, Pa.

321,121. MANUFACTURE OF CEMENT. — Robert W. Lesley and David Griffith, Egypt, Pa.

321,137. COMPOSITION OF MATTER FOR FACING BROWNSTONE AND FOR MAKING ARTIFICIAL STONE. —Benjamin E. Ratcliffe, New York, N. Y.

321,143. HANDLE FOR SLIDING-DOORS. — Obadiah Seely, Syracuse, N. Y.

321,151. DOOR-HANGER.—Edward C. Stearns, Syracuse, N. Y.

321,180. EAVES-TROUGH HANGER.—Wilson C. Berger, Canton, O.

321,184. COMBINED BURGLAR-ALARM AND SASH-FASTENER.—John Brady, Philadelphia, Pa.

321,198. HANGING-DOOR. — Charles W. Emerson, Boston, Mass.

321,212. FIRE-ESCAPE.—Samuel Hargrave, Sr., and Arthur M. Lee, Pomona, Ill.

321,214. GIMLET-POINTED ROLLED WOOD SCREW. Hayward A. Harvey, Orange, N. J.

321,232. STEAM-RADIATOR. — John H. Lounsbury, Westfield, Mass.

321,233. COVERING FOR STEAM-BOILERS, ETC. — Jorgen G. Maardt, Copenhagen, Denmark.

321,245. WINDOW. — John S. Pihlström, Chicago, Ill.

321,268. SHUTTER-WORKER.—John N. Worthington, Springfield, O.

321,284. SASH-BALANCE.—Henry E. Dorman, Worcester, Mass.

321,295. GRAINING COMPOSITION. — Thomas Head, Copetown, Ontario, Can.

321,303. SAFETY DEVICE FOR ELEVATOR-CAGES, ETC.—Petrus F. Laarman, Amsterdam, Holland.

321,306. LOCK. —Thomas W. Markham, Huntsville, Tex.

321,336. LUMBER-DRIER. — Waller B. Beard, Jackson, Miss.

321,380. MORTISE-LOCK. — Patrick Murphy, Amesbury, Mass.

321,385. FIRE-ESCAPE. — William R. Pyne, Port-of-Spain, Trinidad, West Indies.

321,396. SHUTTER-WORKER. — George W. Stover, Laurelton, Pa.

SUMMARY OF THE WEEK.

Baltimore.

BUILDING PERMITS. — Since our last report thirty-three permits have been granted, the more important of which are the following:

Patrick Roddy, 3 three-st'y brick buildings, s s Hillen St., between Front and High Sts,

Albert Mahone, 8 two-st'y brick buildings, w s, and 8 two-st'y brick buildings, e s, Seventeen-foot Alley, s of Tennant St., w of Mount St. and e of Fulton Ave.

Chas. Gantz, 5 two-st'y brick buildings, w s Ann St., n of Eager St.; 9 three-st'y brick buildings, e s Broadway, commencing s e cor. Preston St.; and 7 three-st'y brick buildings, s s Preston St., between Holbrook and Aisquith Sts.

Theresa Volk, three-st'y brick building, n w cor. Castle and Lombard Sts.

Boston Fear, 11 two-st'y brick buildings, e s Carrollton Ave., commencing s e cor. Comity Lane; and 12 two-st'y brick buildings, w s Carlton St., s of Comity Lane.

M. A. Parks, 7 two-st'y brick buildings, e s Nanticoke St., between Cross and Stockholm Sts.

M. R. Scott, three-st'y brick building (square), w s Fulton Ave., n of Patterson Ave.

John O. Ruhler, 10 two-st'y brick buildings, n s Lafayette Ave., commencing n w cor. Calhoun St., and 3 two-st'y brick buildings, w s Calhoun St., n of Lafayette Ave.

A. Krebs, 6 two-st'y brick buildings, commencing n w cor. West St. and Burgunder Alley, and 2 two-st'y brick buildings, w s Burgunder Alley, n of West St.

John G. Schub, three-st'y brick building, w s Harford Ave., s of Lanvale St.

Struven & Walker, three-st'y brick building, s s Boston St., between Chester and Aliceanna Sts.

S. D. Price, 4 three-st'y brick buildings, e s Barclay St., and 4 three-st'y brick buildings, w s Constitution St.

R. W. Dorney, three-st'y brick building, n w cor. Lombard and Calhoun Sts.

J. F. Foley, three-st'y brick building, w s McKim St., between Chase and Biddle Sts.

J. M. Cone, 22 three-st'y brick buildings, s s Harlem Ave., between Fremont and Brune Sts., and 9 two-st'y brick buildings, w s Brune St., between Harlem and George Sts.

Boston.

BUILDING PERMITS. — *Wood.* — *Mellville Ave.*, near Dorchester Ave., dwell., 14′ 3″ and 20′ x 47′ 6″; owner, Elbridge Smith; builder, H. P. Oakman.

Savin Hill Ave., near Grampian Way, dwell., 27′ x 37′ 6″; owners, Emily and Mary Rigby; builder, same as last.

Mercer St., No. 26, dwell., 21′ and 24′ x 36′; owner, James Ferguson; builder, J. A. Allen.

Magazine St., near Clayton Pl., dwell., 24′ x 42′; owner, Patrick O'Connor; builder, Thomas Clune.

Richfield St., near Columbia St., dwell., 22′ and 25′ x 29′; owner, Samuel B. Pierce; builder, Wm. J. Jobling.

Richfield St., near Columbia St., dwell., 22′ and 25′ x 29′; owner, J. Homer Pierce; builder, same as last.

Richfield St., near Columbia St., dwell., 24′ x 29′; owner and builder, John S. Darcy.

Richfield St., near Columbia St., dwell., 24′ x 29′; owner and builder, John Robbins.

Atwood Ave., near Day St., dwell., 31′ x 30′ 6″ and 36′ 6″; owner, L. C. Curtis; builder, Wm. Tobin.

Boylston Ave., near Green St., dwell., 25′ x 41′; owner, Dennis Doyle.

Chestnut Ave., near Green St., dwell., 23′ x 28′; owner, Mary A. Burton; builder, E. Johnson.

Charles St., Nos. 19 *and* 19½, dwell., 19′ 6″ x 41′; owner, Mrs. M. A. Snow; builder, John Bass.

Hilton St., near Wentland Ave., dwell., 16′ x 23′; owner, Mary J. Simmons; builder, S. R. Simmons.

Brooklyn.

BUILDING PERMITS. — *Fulton St.*, n w cor. Nostrand Ave., four-st'y brick tenement, tin roof; owner, Mrs. Julia Diefendorf, Bryant Building, New York; architects, G. P. Chappell & Co.; builder, S. C. Whitehead.

Evergreen Ave., Nos. 381-387, 4 two-st'y frame (brick-filled) dwells., tin roofs; cost, each, $4,500; owner, architect and builder, J. A. S. Simonson, 389 Evergreen Ave.

Grove St., n s, 82′ e Evergreen Ave., 2 two-st'y frame and brick dwells., tin roofs; cost, each, $3,500; day's work; owner, architect and builder, same as last.

Grand St., s e cor. Agate St., 2 three-st'y frame (brick-filled) tenements, tin roofs; cost, each, $4,000; owner and architect, M. Weisshaar, Greene and Nostrand Aves.; builders, M. Kuhn & Son and J. Rueger.

Grant St., s s, 47′ e Agate St., 2 three-st'y frame (brick-filled) tenements, tin roofs; cost, each, $4,350; owner, etc., same as last.

India St., n s, 375′ w Manhattan Ave., three-st'y brick store and tenement, tin roof; cost, $5,500; owner, J. J. Kelly, 406 East Sixtieth St., New York; architect, M. D. Randell; builders, Smith & Gately and M. Bant.

Baltic St., n s, 246′ e Fourth Ave., 3 two-st'y brick dwells., tin roofs, wooden cornices; cost, $3,500; owner, J. H. Wooley, Butler Ave. or Orient Ave.; architect, R. Dixon.

Baltic St., n s, 189′ e Fourth Ave., 3 two-st'y brick tenements, tin roofs, wooden cornices; cost, $4,000; owner and architect, same as last.

Skillman St., No. 70, w s, 25′ s Park Ave., three-st'y frame (brick-filled) tenement, gravel roof; cost, $6,000; owner, J. H. Kohlman, Park Ave., cor. Skillman St.; architect, J. G. Glover; mason, C. Collins.

North Seventh St., n s, 175′ e Fourth St., 2 brick tenements, one three-st'y and stores and one four-st'y, tin roofs; cost, each, $9,000; owner, Hugh Clark, North Seventh St.; architect, E. F. Gaylor; builders, M. Smith and J. Fallon.

Madison St., n w cor. Throop Ave., 2 four-st'y brown-stone tenements and 7 private dwells., tin roofs; cost, each, $9,000; owner and builder, T. F. Ryan, Hewes St.; architect, E. F. Gaylor.

Quincy St., n s, 225′ e Franklin Ave., four-st'y brick and stone tenement, gravel roof; cost, $10,000; owner and builder, Paul C. Grening, 420 Gates Ave.; architect, A. Hill.

Livingston St., Nos. 185 *and* 187, five-st'y brick store, tin roof; cost, $14,000; owners, Weehsler & Abraham, 430 Fulton St., architect, G. L. Morse.

Halsey St., n s, 315′ e Nostrand Ave., 2 three-st'y brown-stone dwells., tin roofs; cost, $8,500; owner and builder, Wm. Shinden, 216 Herkimer St.; architect, M. Walsh.

Willoughby Ave., n s, 134′ 6″ e Kent Ave., two-st'y brick dwell., tin roof; cost, $4,000; owner and builder, George Browley, 250 Steuben St.; architect, M. J. Morrill.

Howard Ave., s e cor. Jefferson St., three-st'y brick store and dwell., tin roof; cost, $6,190; owner, Owen Mulvey, 67 Howard Ave.; architect, B. O'Rourke; builders, J. H. O'Rourke and T. S. Priestley.

Sixth Ave., n e cor. Sixteenth St., three-st'y brick store and dwell., tin roof; cost, $7,000; owner, M. Duffy, Sixth Ave., cor. Sixteenth St.; architect and contractor, T. Corrigan; mason, W. Corrigan.

Grand Ave., w s, 150′ n Willoughby Ave., 3 four-st'y brick tenements, tin roofs; cost, each, $9,000; owner, John N. Eitel, 257 Carlton Ave.; architect, C. F. Eisenach; builders, T. Doulon and J. T. Hanlon.

Monroe St., s e cor. Sumner Ave., 5 two-and-a-half-st'y brown-stone dwells., tin roofs; cost, each, $5,000; owner and builder, D. S. Beasley, 39 Pulaski St.; architect, I. D. Reynolds.

Waverly Ave., e s, 100′ s Myrtle Ave., four-st'y brick and brown-stone tenement, tin roof; cost, $12,000; owner, Cornelius Donnellon, 116 Pacific St.; architects, G. P. Chappell & Co.

Hart St., n s, 226′ e Marcy Ave., two-st'y brick dwell., tin roof; cost, $4,000; owner, architect and builder, P. Dunnon, 110 Tompkins Ave.

Lafayette Ave., n s, 30′ w South Oxford St., three-st'y brick club-house, slate and tin roof; cost, $25,000; owner, Oxford Club, South Oxford St., cor. Lafayette Ave.; architect, J. Mumford; builders, J. Ashfield & Son and W. S. Wright.

McDonough St., n s, 120′ and 280′ w Lewis Ave., 6 three-st'y brown-stone dwells., tin roofs; cost, each, $5,000; owner, P. Sheridan, 775 Myrtle Ave.; architect, J. Harbison; builder, P. Sheridan.

Central Ave., w s, 102′ n Myrtle St., three-st'y frame tenement, tin roof; cost, $4,000; owner, M. Harman, Central Ave., near Myrtle St.; architect, J. Platte; builders, K. Mahler and T. D. Eadie.

Nineteenth St., s s, 225′ w Sixth Ave., 2 three-st'y frame tenements, tin roofs; cost, each, $3,000; owner, architect and contractor, J. Mahoney, 1007 Third Ave.; mason, O. O'Kief.

Manhattan Ave., w s, 175′ s Nassau Ave., four-st'y frame (brick-filled) store and tenement, gravel roof; cost, $6,000; owners and masons, Gately & Smith, 569 Lorimer St.; architect, A. Van Dien.

Douglass St., s s, 90′ e Fifth Ave., 10 two-st'y brick dwells. and two-st'y extension, tin or excelsior roofs; cost, $4,000; owner, W. H. Jackson & Co., Madison Sq., New York; architect, F. L. Hine; builder, H. E. Fickett.

Hancock St., No. 704, s s, about 200′ e Reid Ave., two-st'y brick factory, tin roof; cost, $9,000; owner, W. Woerle, on premises; architect, F. Holmberg; builder, D. Distler.

Heyward St., s s, 120′ w Lee Ave., 6 three-st'y brick flats, tin roofs; cost, each, $6,000; owner and builder, R. Healey; architect, I. D. Reynolds.

Broadway, w s, 57′ s Park Ave., 2 four-st'y brick stores and tenements, tin roofs; cost, each, $16,500; owner, Theresa Adelman, 3 Sheriff St., New York; architect, F. Holmberg; builder, J. Rueger.

Johnson Ave., No. 121, three-st'y frame (brick-filled) store and tenement, tin roof; cost, $3,800; owner, M. Joeller, on premises; architect, H. Vollweiler.

Twenty-third St., s s, 225′ w Fifth Ave., three-st'y frame tenement, tin roof; cost, $3,800; owner, A. Ostergreen, on premises; architect and builder, J. Sorenson.

North Sixth St., No. 201, 177′ e Fifth St., four-st'y brick tenement, tin roof; cost, $8,500; owner, Mrs. J. M. Selvage, 269 Hewes St.; architect, Th. Engelhardt; builders, G. Lehrian & Son and Geo. Ross.

Putnam Ave., n s, 25′ w Sumner Ave., 8 three-st'y brown-stone dwells., gravel roofs; cost, each, $8,000; owner and architect, John C. Bushfield; builder, not selected.

Nostrand Ave., n w cor. Lexington Ave., 5 four-st'y brick stores and tenements, gravel roofs; cost, each, $9,000; owner, Jos. P. Fuels and Wm. J. Northridge, on premises; architect, P. F. Thomas.

ALTERATIONS. — *Furman St., Nos.* 153 *to* 160, rebuild river front, iron beams, etc.; cost, $4,000; owner, John Watson, 68 Gold Street, New York; builders, Hazzard's Sons & Co. and Mr. Sonne.

Gallatin Pl., five-st'y and basement brick extension, front and interior alterations; cost, $8,000; owners, Wechsler & Abraham; architect, G. L. Morse.

Chicago.

BUILDING PERMITS. — Mrs. M. Parrott, 10 two-st'y dwells., 221-237 Wilmot Ave.; cost, $20,000.

J. Bonn, 2 two-st'y dwells., 75 and 77 Jay St.; cost, $5,000.

M. Bickel, two-st'y flats, 642 West Nineteenth St.; cost, $2,500.

B. Quirk, two-st'y flats, 124 Walnut St.; cost, $3,500.

J. Halpack, two-st'y dwell., 560 West Twentieth St.; cost, $2,500.

Mrs. G. Chisholm, two-st'y dwell., 552 Jackson St.; cost, $4,500.

H. Krolovece & Bros., three-st'y flats, 576-582 West Twenty-first St.; cost, $8,000.

Mrs. C. Salles, two-st'y dwell., 708 Madison St.; cost, $4,500; architect, A. Smith.

J. Speich, two-st'y dwell., 1247 Fulton St.; cost, $3,000.

W. M. Hoyt, four-st'y flats, 45 and 47 Pine St.; cost, $17,000; architect, L. B. Townsend.

M. Urbanus, two-st'y factory; cost, $2,500.

J. Kraemer, two-st'y flats, 189 Hoyne Ave.; cost, $2,800.

J. Osborn, two-st'y dwell., 509 Oakley St.; cost, $2,600.

C. Schwartz, two-st'y flats, 285 and 287 Fulton St.; cost, $4,000.

C. Schwartz, three-st'y flats, 289 Fulton St.; cost, $2,500.

W. E. Hale, alterations, s w cor. Washington and State St.; cost, $10,000; architects, Ackerman & Smith.

W. Steinmetz, two-st'y dwell., 336 Dayton St.; cost, $2,500.

C. Seibrantz, two-st'y flats, 621 North Lincoln St.; cost, $4,500.

S. Oleson, three-st'y flats, 92 Sedgwick St.; cost, $6,000.

J. Orsna, two-st'y store and dwell., 638 Throop St.; cost, $4,000.

A. Ciskowsky, three-st'y dwell., 157 Bissell St.; cost, $4,000.

J. Nowak, three-st'y store and dwell., 147 Bunker St.; cost, $3,600.

G. C. Wallace, two-st'y store and flats, 468 and 470 Taylor St.; cost, $14,000.

J. Schieferstein, three-st'y store and flats, 235 Division St.; cost, $18,000; architect, E. Baumann.

C. Manke, two-st'y store and dwell., 449 Twenty-sixth St.; cost, $4,500.

B. Hazelquist, three-st'y dwell., 293 West Ohio St.; cost, $3,800.

A. Simon, two-st'y dwell., 200 Bissell St.; cost, $3,000.

H. Stumpe, two-st'y dwell., 632 West Harrison St.; cost, $5,000.

A. Schackmann, three-st'y dwell., 510 Dearborn Ave.; cost, $15,000; architect, T. Karis.

The Board of Education, three-st'y school-house, 982-988 Wilcox Ave.; cost, $40,000; architect, J. J. Flanders.

H. Barnard, two-st'y dwell., 3241 Rhodes Ave.; cost, $7,000; architect, W. A. Furber.

W. G. Jackson, 2 two-st'y dwells., 935 and 937 Adams St.; cost, $5,500; architect, C. M. Palmer.

F. Tierney, four-st'y store and flats, 221 West Twelfth St.; cost, $7,000.

P. Johannes, three-st'y store and dwell., 3601 Halsted St.; cost, $10,000.

A. M. Billings, one-st'y condensing-house, Division St.; cost, $5,000.

J. Fitzpatrick, two-st'y dwell., 3112 Fifth Ave.; cost, $3,000.

J. Sargent, two-st'y dwell., 744 Warren Ave.; cost, $2,500.

C. W. & E. Partridge, 2 two-st'y dwells., 3721 and 3723 Lake Ave.; cost, $6,000.

A. P. Johnson, two-st'y dwell., 695 North Robey St.; cost, $8,500.

R. Berl, two-st'y store and dwell., 1544-1546 Milwaukee Ave.; cost, $6,500.

The Abbey Estate, one-st'y addition, 251 and 263 Wabash Ave.; cost, $5,000.

J. Palatreich, three-st'y store and flats, 322 West Chicago Ave.; cost, $5,000.

J. Pent, two-st'y dwell., 20 Evans Ct.; cost, $2,500.

Mrs. Olson, three-st'y dwell., 369 Twenty-fifth St.; cost, $5,000.

Mrs. M. Carberry, two-st'y dwell., 80 Union Park Pl.; cost, $4,000.

J. L. Coles, three-st'y store and dwell., 633 North Clark St.; cost, $7,000.

Detroit, Mich.

Board of Education, two-st'y addition, Webster School; cost, $18,000.

Candler Bros., alterations to dwell., 559 Woodward Ave.; cost, $4,000.

Ferdinand Kuhn, block of brick buildings, 192-198 East Adams Ave.; cost, $10,500.

Lane & Deitz, brick dwell., Fremont St.; cost, $3,600.

G. W. Buffam, brick dwell., 17 Joy St.; cost, $4,500.

D. W. Fales, brick dwell., 692 Cass Ave.; cost, $3,500.

Patrick Dee, two-st'y brick and frame dwell., Ferry St.; cost, $5,000.

Bradford Smith, 4 brick stores, 888-890 Michigan Ave.; cost, $8,000.

Board of Education, two-st'y brick school-house, Kentucky St.; cost, $20,000.

A. C. Varney, two-st'y brick dwell., Lincoln Ave.; cost, $4,500.

W. J. Mandy, 3 double frame stores, St. Aubin Ave.; cost, $5,250.

G. H. Osgood, 3 frame dwells., Campan Road, cost, $3,600.

Lane & Deitz, double brick dwell., 91-93 Ledyard St.; cost, $10,000.

Board of Education, addition to Duffield School; Macomb St., cost, $12,000.

Also add to Jefferson School, cor. Crawford St. and Selden Ave.; cost, $12,000.

Robert Dunn, three-st'y brick manufactory, 79-81 Brush St.; cost, $3,000.

Thos. Fairbairn, two-st'y brick dwell., 136 Lafayette Ave.; cost, $8,000.

Philip Letourneau, three-st'y brick dwell., 497 Cass Ave.; cost, $6,500.

New York.

In this excessively hot weather, the only news is on things problematical. Builders do not seem very anxious to figure, and are all busy on work started in the spring.

Flats.—On the s w cor. of Fifty-eighth St. and Sixth Ave., an apartment-house 82′ 10″ x 100′ of brick, granite and iron, is to be built for Messrs. Harris Bros.; from plans of Messrs. A. Zucker & Co.

On the s e cor. of Avenue A and Fifty-fifth St., 8 apartment-houses, 25′ x 80′ each, are to be built for Mr. R. Guggenheimer; from plans of Messrs. A. B. Ogden & Son, at an estimated cost of $150,000.

Houses.—On the n s of Seventy-eighth St., 250′ w of Ninth Ave., 6 three-and-four-st'y basement, high stoop houses, 16′ x 18′ fronts, are to be built for Mr. B. S. Levy; from plans of Mr. R. Guastivino.

Institutions are proposing to put some work on the market:

The St. Vincent de Paul Orphan Asylum will have a four-st'y and basement addition, 48′ x 48′ of brick and Ohio stone, built at a cost of $60,000; from plans of Mr. W. H. Hume.

The Home for the Relief of the Destitute Blind, will have a building erected on the s w cor. of Tenth Ave. and One Hundred and Fourth St., 100′ x 125′, three-st'y and basement, native stone first st'y, and above brick and brown-stone, to cost about $55,000; Mr. F. Carlos Merry, architect.

The Children's Aid Society will erect a new building, 47′ x 93′, five-st'y and basement, brick and stone, to be situated on Eighth St. and Avenue B; from plans of Messrs. Vane & Radford.

Building Permits.—*Hester St., No.* 25, five-st'y brick tenement, metal roof; cost, $15,000; owner, Rachel Kurzman, 383 Grand St.; architect, John B. Snook.

Maiden Lane, Nos. 138 *and* 140, five-st'y brick storehouse and office-building, tin roof, owner, John Carle, Jr., 153 Water St.; architect, W. B. Tubby.

Canal St., No. 112, five-st'y brick tenement with stores, metal roof; owner, Lorillard Spencer, Paris, France, architect, J. B. Snook.

Beekman St., Nos. 146 *and* 148, four-st'y brick store and lofts, tin roofs; cost, $12,000; owners, Elizabeth S. Jones and Harriet D. Potter, 46 West Thirty-ninth St.; architect, G. B. Post; builders, James B. Smith and V. J. Hedden & Sons.

Varick St., s e cor. King St., 5 three-st'y brick stores and dwells., tin roofs; cost, $40,000; owners, Corporation of Trinity Church, 5 Church St.: architect, Chas. C. Haight; builders, Robinson & Wallace and David Hepburn.

Waverley Pl., w s, 60′ n Eleventh St., 2 three-st'y brick dwells., tin roofs; cost, each, $6,000; owner, Mrs. Hester A. Gregory, 219 West Eleventh St.; architect, W. B. Tuthill.

Fifty-ninth St., s s, 250′ e Second Ave., 4 five-st'y brick tenements, tin roofs; cost, each, $18,000; owner, James T. Meagher, 325 East One Hundred and Twenty-third St.; architects, Thom & Wilson.

East Sixty-ninth St., No. 21, four-st'y brick (stone front) dwell., tin and slated roof; cost, $26,000; owners, architects and builders, Charles Buek & Co, 500 Madison Ave.

East Sixty-ninth St., No. 23, four-st'y and basement brick dwell., tin and slated roof; cost, $20,000; owner, etc., same as last.

East Sixty-ninth St., No. 25, four-st'y and basement brick dwell., tin roof; cost, $40,000; owner, etc., same as last.

East Sixty-ninth St., No. 27, four-st'y and basement brick dwell., tin roof; cost, $30,000; owner, etc., same as last.

East Sixty-ninth St., No. 29, four-st'y and basement brick dwell., tin roof; cost, $26,000; owner, William Openhym, New Jersey; architects, etc., same as last.

Eighty-eighth St., n s, 54′ 6″ e Third Ave., five-st'y brick flat with store, tin roof; cost, $10,000; owner, John H. Gray, 1564 Park Ave.; architect, J. McIntyre.

Eighty-eighth St., n s, 74′ 6″ e Third Ave., three-st'y brick workshop, tin roof; cost, $4,000; owner and architect, same as last.

One Hundred and Third St., n w cor. First Ave., one-st'y brick tenement, tin roof; cost, $3,000; owner, John Simon, 136 Chrystie St.; architect, A. Arctander.

Avenue A., s e cor. Eighty-second St., five-st'y brick (stone front) tenement with store, tin roof; cost, $24,000; owner, Stephen Pendergast, 1158 Second Ave.; architects, A. B. Ogden & Son; builders, Walsh Bros.

Second Ave., s w cor. One Hundred and Third St., five-st'y brick tenement with store, tin roof, owner, Margaret A. Murray, 315 East One Hundred and Sixteenth St.; architect, A. Spence.

Third Ave., s w cor. Ninety-sixth St., five-st'y brick tenement with stores, tin roof; cost, $22,000; Leo Schlessinger, 128 East Seventy-fourth St., and Jos. Hecht, 44 East Sixty-eighth St.; architects, Schwarzmann & Buchman.

Third Ave., w s, 20′ s Ninety-sixth St., 3 five-st'y brick tenements with stores, tin roofs; cost, each, $21,000; owner, etc., same as last.

Avenue A, s e cor. Eightieth St., five-st'y brick factory, tin roof; cost, $45,000; owner, Geo. P. Lies, 313 East Seventeenth St.; architects, Schwarzmann & Buchman.

Avenue A, e s, 46′ 8″ s Eightieth St., five-st'y brick tenement, tin roof; cost, $18,000; owners and architects, same as last.

Sixty-third St., n w cor. Ninth Ave., five-st'y brick flat, tin roof; cost, $25,000; owner, T. Farley, 402 West Seventy-third St.; architects, Thom & Wilson.

Sixty-third St., n s, 25′ w Ninth Ave., 4 three-st'y brick (stone front) dwells., tin roofs; cost, each, $16,000; owners, T. Farley & Son, 402 West Seventy-third St.; architects, Thom & Wilson.

Sixty-ninth St., s w cor. Ninth Ave., five-st'y brick flat, tin roof; cost, $45,000; owner, Hugh Blesson, 1262 Lexington Ave.; architect, Wm. Baker.

Sixty-ninth St., s s, 30′ w Ninth Ave., 4 four-st'y brick (stone front) dwells., tin roofs; cost, each, $22,000; owner and architect, same as last.

Eighty-second St., n s, 100′ w Tenth Ave., 6 three-st'y brick dwells., tin and slated (fire-proof sheathing) roofs; cost, each, $12,000; owner, Richard W. Myers, 131 East Sixty-third St.; architect, William Baker.

Seventh Ave., n w cor. One Hundred and Thirty-fourth St., 7 three-st'y brick dwells., tin roofs; cost, total, $50,000; owner, Patrick J. O'Brien, One Hundred and Forty-third St., near Eighth Ave.; architect, A. Spence.

One Hundred and Thirty-fourth St., n s, 65′ w Seventh Ave., 2 three-st'y brick dwells., tin roofs; cost, total, $14,000; owner and architect, same as last.

Fleetwood Ave., n e cor. One Hundred and Seventy-sixth St., two-st'y brick dwell., slate roof; cost, $9,000, owner, August Koelsch, 838 Sixth Ave.; architect, John C. Kerby.

Mott Ave., e s, 152′ s One Hundred and Forty-ninth St., 2 three-st'y brick dwells., tin roofs; cost, each, $5,000; owner, G. W. Walker, 367 West Thirty-sixth St.; architect, W. L. Goetchius.

North Third Ave., No. 390, two-st'y brick packing-house, felt and gravel roof; cost, $7,700; owner, Francis J. Schnugg, 433 East Eighty-sixth St.; architect, Robert Fay; builder, Wm. Somerville.

Third Ave., w s, abt. 100′ s One Hundred and Seventy-ninth St., 2 two-st'y frame dwells., tin roofs; cost, $5,000; owner, Thomas Brown, 126 East Twenty-seventh St.; architect, C. C. Churchill; builders, Jas. McGarity and Louis Falk.

Alterations.—*Fifth Ave., No.* 411, n e cor. Thirty-seventh St., area deepened and internal alterations; cost, $6,000; owner, Mary Lewis, Tarrytown, N. Y., or on premises; architect, H. R. Marshall; builders, W. & T. Lamb, Jr. and P. Haughey.

Grand St., No. 281, one-st'y brick extension, tin roof, new store front, internal alterations and connection made with adjacent buildings; cost, $10,000; owners, J. Lichenstein & Son, 283 Grand St.; architect, J. Kastner.

Third Ave., No. 136, extension raised one st'y; cost, abt. $1,500; lessee, James Plavano, on premises; owner, Wm. Bird; architect, E. Gandolfo.

Greenwich St., Nos. 309-313, repair damage by fire; cost, $4,984; owner, Mrs. Mary Stuart, 961 Fifth Ave.; G. G. Williams, attorney; builder, E. Smith.

Philadelphia.

Building Permits.—*Parrish St.*, e of Forty-second St., 15 three-st'y dwells., 16′ x 42′; Fred Michaelson, owner.

Mehl St., e of Main St., two-st'y dwell, 16′ x 42′; Wm. Garvin, contractor.

Preston St., bet. South and Ogden Sts., three-st'y dwell., 26′ x 35′; S. Smith, contractor.

St. Paul's Pl., w of Sixteenth St., 10 three-st'y dwells., 24′ x 26′; Jas. Williams, superintendent.

Race St., No. 1510, in rear, addition to school-house, 23′ x 30′; Richards & Shourds, contractors.

Third St., s w cor. Canal St., ice-house, 16′ x 45′; O. Schmidt, contractor.

Marriott St., e of Fifth St., altering stable to dwells., 14′ x 39′; Daniel Kidd, contractor.

Tacony St., three-st'y dwell., 30′ x 60′; Thomas McCarty, contractor.

Eighth St., above York St., two-st'y dwell., 16′ x 50′; Chas. Schuck, contractor.

Fifth St., cor. Eustace St., two-st'y dwell., 16′ x 28′; Thos. Grinnan, contractor.

Twenty-fifth St., s of Poplar St., 25 two-st'y dwells., 16′ 6″ x 40′; Jno. M. Sharp, owner.

Sunnyside St., w of Thirty-fifth St., 4 two-st'y dwells., 15′ x 32′; J. F. Richards, contractor.

Fisher's Lane, e of Main St., two-st'y brick building, 16′ x 33′; S. R. McDowell, contractor.

Howard St., No. 2341, three-st'y store, 14′ x 65′; J. Meanholt, contractor.

Franklin St., bet. Unity and Pine Sts., blacksmith shop, 23′ x 30′; Geo. Swope, owner.

Mascher St., No. 1303, three-st'y factory, 22′ x 58′; C. G. McMullin, contractor.

Manayunk St., crematory, old Greek style, pilasters, bases, columns and architraves to be of granite; walls of brick; roof to be surmounted by a cupola, both covered with copper, 80′ x 100′; Wm. Gelte, architect.

Ellsworth St., Nos. 1337 *and* 1339, 2 three-st'y dwells., 16′ x 58′; Chas. O'Neill, contractor.

Christian St., No. 224, three-st'y dwell., 20′ x 52′; W. H. Messick, contractor.

Park st., w of Twenty-second St., 2 two-st'y brick buildings, 14′ x 30′; Jas. E. Thorp, contractor.

Eadline St., w of Forty-fourth St., two-st'y addition, 24′ x 28′; Stacy Reeverson, contractor.

Rochester N. Y.

Building Permits.—Plans have been prepared for a new four-st'y business block, cor. of Spring St. and Plymouth Ave., 100′ on Spring St. and 65′ on Plymouth Ave., for John Mogridge; Warner & Brockett, architects; W. N. Gorshire, contractor.

Otis & Crandall, architects, are preparing drawings for the following buildings:—

Three-st'y brick manufacturing-building on Spring St., for Thomas Swift & Sons.

Three-st'y brick business block on Smith St., for Michael Keenan; material to be brick, with cut-stone trimmings.

Three frame houses on Perkins St., for Paul Luchleitner.

House for J. L. Luckey, Lake Ave.

Double frame house on Charlotte St., for the Misses Dick.

They are also preparing plans for a large livery-stable for J. W. Graves, to be located in the eastern part of the city.

Walker & Nolan, architects, are engaged on the following work:—

Stone dwell. on Portsmouth Terrace, for J. R. Fanning.

Brick dwell. on West Franklin Square, for J. S. Brown.

Cottage house on Prospect St., for E. A. Medcalf.

St. Paul, Minn.

Building Permits.—Two-st'y stone and brick veneer stores and dwell., e s of Bates Ave., bet. Hudson and Blum Sts.; cost, $3,500; owner, August Setracht.

Two-st'y brick double dwell., s s of Weniford St., bet. Greenwood and Clinton Sts.; cost, $2,490; owner, H. F. Langelyt.

Three two-st'y frame dwells., s s of Summit Ave., bet. Snelling and Macalester Sts.; cost, $3,500; owners, B. F. Wright and R. P. Lewis.

Two-st'y frame dwell., s s of Summit Ave., bet. Snelling and Macalester Sts.; cost, $7,500; owners, B. F. Wright and R. P. Lewis.

Two-st'y frame dwell., s s of Terrace Ave., bet. Wilder and Moore Park; cost, $2,000; owner, C. D. Parker.

Two-st'y frame dwell., n s of Holly Ave., bet. Arundel and Mackubin Sts.; cost, $5,000; owner, Geo. S. Baxter.

Alteration of front to three-st'y brick stores and offices, s s of Fourth St., bet. Wabasha and Cedar Sts.; cost, $4,000; owner, J. L. Merriam.

Two-st'y frame dwell., s s of Portland Ave., bet. Kent and Dale Sts.; cost, $5,000; owner, E. P. Wilga.

Two-st'y brick veneered barn, s s of Summit St., St., bet. Western and Walnut Sts.; cost, $4,500; owner, F. Driscol.

Two-st'y frame dwell. and store, s s of Margaret St., bet. Sunien and Arcade Sts.; cost, $3,500; owner, Nicholas Wilmer.

Three-st'y brick store and dwell., e s of West Seventh St., bet. Chestnut and Eagle Sts.; cost, $5,000; owner, Wm. Foulke.

Two-st'y frame dwell., n s of Oakly St., bet. Lyndhurst and Westwood Sts.; cost, $2,000; owner, E. A. Fitzgerald.

Two-st'y frame dwell., n s of Hancock St., bet. Howell and Laurel Ave.; cost, $2,000; owner, E. R. Moore.

One-and-one-half-st'y frame dwell., w s of Dale St., bet. Holly and Hennepin Sts.; cost, $2,150; owner, G. M. Sawyer.

Three-st'y brick block stores and hotel, n s of East Fifth St.; bet. Wabasha and Cedar Sts.; cost, $35,000; owner, A. R. Carpehart.

General Notes.

Allentown, Pa.—The site has been chosen and arrangements nearly completed for the erection of a silk mill here, 50′ x 250′, with wings of the same dimension. John Pyle, of Paterson, N. J., is the original mover of the enterprise.

Anne (Arundel Co.), Md.—St. Paul's parish building; cost, $17,000.

Additions to Mt. Calvary Church; cost, $7,000.

Repairs and improvements in All Hallow's Church.

T. B. Ghequier, Baltimore, architect for above.

Anoka, Minn.—The construction of the new city-hall is in charge of Aldermen Browning, Page and Woods. The contract for the foundation has been

The American Architect and Building News.

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New Advertisements.

SCHOOL OF MINES (New York, N. Y.), Architectural Schools. Page vi.
RAYMOND FURNACE & M'F'G CO. (New York, N. Y.) Heating-Apparatus. Page 2, Gelatine Cover.
WORLD M'F'G CO. (New York, N. Y.), Books. Page 3, Gelatine Cover.
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The Copartnership heretofore existing under the name of **JAMES R. OSGOOD & CO.**, is hereby dissolved.

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The subscribers have formed a Copartnership under the name of **TICKNOR & COMPANY**, for the purpose of continuing the business of Publishing and Book-selling, heretofore carried on by **JAMES R. OSGOOD & CO.**

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SALESMAN. — Wanted, immediately, an experienced salesman for the mantel, grate and tile business. Must be thoroughly posted in the details and general direction of this line, and capable of taking charge of this department in a large retail establishment in one of the best towns in the west. Permanent engagement and good salary to a competent man who can furnish satisfactory references as to character, ability and experience. Address, "Mantels," care this office. tf

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BUILDING INTELLIGENCE.

General Notes. (*Continued.*)

let to J. P. Peterson, and work will commence at once.

MONTPELIER, VT. — The commission to locate the Government building have selected a site on State Street, now occupied by the property of Joseph Poland, as the *Watchman* printing-office, the residence of Mrs. Joseph Gould, and portions of the property owned by Washington County and the late C. W. Willard. The price aggregates $15,000.

NORTHFIELD, MINN. — This city is enjoying a building "boom" this season such as it has never before experienced. A large number of houses costing from $2,000 to $4,000 each are being built. A fine two-st'y school-building, costing $5,000, is being built on the West Side, and a handsome stone and brick Y. M. C. A. building will soon be completed.

NEW HAVEN, CONN.—New Haven Gas Light Co. will erect two brick additions, cor. Chapel and East Sts., 19′ x 20′ and 28′ x 32′.

Mrs. Eleanor Beecher, three-st'y brick apartment-house of six tenements, 40′ x 47′, Collis St.; cost, $7,000.

Herman Hoffmeister, raise brick building on Grand St., two stories, 15′ x 50′.

PERRYVILLE, MD. — George Archer, architect, Baltimore, has prepared plans for a frame Presbyterian church, 26′ x 50′, to be erected here, to cost $2,500; seating capacity two hundred.

PIKESVILLE, MD.—J. Howard McHenry, Esq., is having alterations made to his house, to cost $3,000, from designs by George Archer, architect, Baltimore; Philip Watson, builder, Pikesville.

PITTSFIELD, MASS. — Work has begun again on Burbank's new block under the direction of Builder Foote.

PORT KENNEDY, PA. — Near Norristown, Pa., dwell., Queen Anne style, to be built of stone, for Jno. F. Betz, to cost $30,000; also stable with a capacity for 400 head of cattle; Wm. Gelte, architect.

PORTLAND, ME. — Frame dwell. for E. T. Burrowes; cost, $8,500.
Frame dwell. for Hiram Knowlton; cost, $3,000.
Double frame house for Morse Bros.; cost, $8,000.
John Calvin Stevens, architect for the above.

SACO, ME.—Schoolhouse; cost, $35,000; John Calvin Stevens, architect, Portland, Me.

SULLIVAN, IND. — Ed. Kelly, wooden dwell.; cost, $3,500; D. S. Hopkins, architect, Grand Rapids, Mich.

TURNER'S FALLS, MASS.—About an acre of land has been bought near the new Unitarian Church on which the new school-house will be built.

WASHINGTONVILLE, GALION AND ASHLAND, O.—Passenger and freight depots to be built later; Theo. Rosenberg, architect, Cleveland, O.

WOODBURY, N. J. —Three-st'y dwell., first story clapboards, upper stories shingles; W. R. Flanagan, owner; Hazlehurst & Huckel, architects, Philadelphia, Pa.

Bids and Contracts.

BOSTON, MASS. — Proposals have been received for furnishing the freestone and masonry work on the new engine-house at East Boston as follows: masonry, W. H. Alexander, $11,000; J. Henry Stephenson, $8,247; Emery & Small, $8,200; A. Ripley, $8,360; J. M. Kuning, $8,096; R. R. Mayers & Co., $7,511.
Freestone: Richard R. Walsh, $977; J. Wolf & Son, $1,069; F. G. Coughlan & Co., $925.
The contract was awarded to the lowest bidder in each case.

CAIRO, ILL.—The contract for stone and brick fence walls for the approaches to the Marine Hospital has been awarded to Richard Walsh, of Cairo, at his bid of $5,419.
The contract for iron fences, etc., for the approaches to the Marine Hospital has been awarded to the Champion Iron Fence Company, at Kenton, O., at its bid of $1,193.

DENVER, COL. — The contract for iron beams, columns, etc., for first-st'y floor of the court-house and post-office has been awarded to Clark, Raffin & Co., Chicago, Ill., at $1,855.

JEFFERSON CITY, MO.—The following is a synopsis of the bids for iron beams, etc., for second, third and attic floors, and iron columns for first and second stories of the court-house and post-office: —
Phœnix Iron Co., Trenton, N.J., $5,750.
Clark Raffin & Co., Chicago, Ill., $5,412
Haugh, Ketcham & Co., Indianapolis, $5,055.85.
Dearborn Foundry Co., $4,950.
Snead & Co., Iron Works, $4,874.
Marshall Foundry and Construction Co., $4,575.
Ætna Iron Works, $5,494.80.
Union Foundry and Pullman Car Wheel Works, $4,875.

QUINCY, ILL.—The contract for iron roof, etc., for the post-office and court-house has been awarded to the Penn Bridge Works, at its bid of $7,920.

WASHINGTON, D. C. — The Cape Ann Granite Company has been awarded the contract for furnishing the granite material for the stairways of the west wing of the State, War and Navy Department building, for $24,737.

PROPOSALS.

SOLDIERS' MONUMENT.
[At Baxter Springs, Kans.]

OFFICE NATIONAL CEMETERIES,
WASHINGTON, D. C., June 27, 1885.

Sealed proposals, in triplicate, with a copy of this advertisement attached to each, will be received at this office **until Friday, July 31, 1885**, for furnishing and erecting a soldiers' monument of marble or granite in the City Cemetery at Baxter Springs, Kans.

Specifications and blank forms of proposals can be secured on application to the depot quartermasters at St. Louis, Mo., Chicago, Ill., and Fort Leavenworth, Kans., and at this office.

Proposals should be endorsed "Proposals for Monument," and addressed to the undersigned. They will be opened at this office at noon on the date above named, when bidders are invited to be present.

The right is reserved to reject any or all bids.

R. N. BATCHELDER,
500 Deputy Q. M. General U. S. Army.

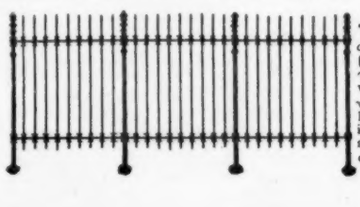
STONE AND BRICK WORK.
[At Concord, N. H.]

OFFICE OF SUPERVISING ARCHITECT,
TREASURY DEPARTMENT,
WASHINGTON, D. C., July 11, 1885.

Sealed proposals will be received at the office of the Supervising Architect of this Department **until 2 P. M., on the 10th day of August, 1885**, for furnishing and setting all the stone-work and brickwork required for the basement and superstructure of the post-office, court-house, etc., building at Concord, N. H., in accordance with drawings and specifications, copies of which and any additional information may be obtained at this office, or the office of the superintendent of the building.

Bids must be accompanied by a certified check for $1,000 for stone, and $500 for brick work.

500 M. E. BELL, Supervising Architect.



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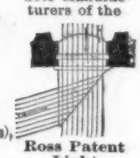

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PROPOSALS.

IRON ROOF.
[At Pensacola, Fla.]

OFFICE OF SUPERVISING ARCHITECT,
TREASURY DEPARTMENT,
WASHINGTON, D. C., July 14th, 1885.

Sealed proposals will be received at this office **until 2 P. M., on the 12th day of August, 1885**, for furnishing and putting in place complete, the iron-roof framing, etc., for the court-house, post-office, etc., building at Pensacola, Fla., in accordance with drawings and specification, copies of which and any additional information may be had at this office, or the office of the superintendent.

Bids must be accompanied by a certified check for $500.

M. E. BELL,
500 Supervising Architect.

STONE AND BRICK WORK.
[At Council Bluffs, Io.]

OFFICE OF SUPERVISING ARCHITECT,
TREASURY DEPARTMENT,
WASHINGTON, D. C., July 9, 1885.

Sealed proposals will be received at the office of the Supervising Architect of this Department **until 2 P. M., on the 10th day of August, 1885**, for furnishing and setting all the stone-work and brickwork required for the superstructure of the post-office building, at Council Bluffs, Io., in accordance with drawings and specification, copies of which and any additional information may be obtained at this office, or the office of the superintendent of the building, after the 17th instant.

Bids must be accompanied by a certified check for $1,000 for stone, and $500 for brick work.

500 M. E. BELL, Supervising Architect.

SCHOOL-HOUSE.
[At Brooklyn, O.]

BROOKLYN VILLAGE, O., July 30, 1885.

Sealed proposals will be received by the clerk of the Board of Education of Brooklyn Village, O., in Brooklyn Village, **until 12 o'clock, noon, July 31, 1885**, for building a frame school-house, on or near the cor. of Ray and Elizabeth Sts., and for the building of a brick addition to the Newburg Street School-House, in accordance with plans and specifications on file with the clerk on and after July 10, 1885.

Separate bids must be given for each building, and contain the name of every person interested in the same, and be accompanied by a bond in the sum of $300, with sufficient security that if the bid is accepted a contract will be entered into, and its performance properly secured.

The price of material and of labor must be separately stated.

The Board reserves the right to reject any or all bids.

By order of the Board of Education,
500 EDWIN CHESTER, Clerk.

CEMETERY-WALL.
[Near East New York, L. I.]

OFFICE NATIONAL CEMETERIES,
WASHINGTON, D. C., July 2, 1885.

Sealed proposals, in triplicate, with a copy of this advertisement attached to each, will be received at this office **until Wednesday, August 5, 1885**, for construction of stone enclosing wall at the Cypress Hill National Cemetery, near East New York, Long Island, N. Y.

Specifications for the work and blank forms of proposals can be procured, and plans examined on application to quartermaster's office, Greene and Houston Sts., New York, at the cemetery, and at this office.

Proposals should be endorsed "Proposals for Enclosing Wall at Cypress Hills," and addressed to the undersigned. They will be opened at this office at noon on the date above named, when bidders are invited to be present.

The right is reserved to reject any or all bids.

R. N. BATCHELDER,
501 Deputy Q. M. General, U. S. Army.

PROPOSALS.

STEAM-BOILERS.

[At Leavenworth, Kans.]

THE NATIONAL HOME FOR DISABLED VOLUNTEER SOLDIERS, WESTERN BRANCH, LEAVENWORTH, KANS., July 23, 1885.

Sealed proposals will be received at the Planter's House in this city **until 12 o'clock, noon, August 15th, 1885,** for furnishing delivered on the grounds seven (7) steam-boilers, according to plans and specifications which may be seen at the office of Carr & Grodavent, architects, Leavenworth, on and after July 25.

The right to reject any or all bids is reserved.

GEN. W. B. FRANKLIN, President.

502 E. F. BROWN, Inspector-General.

WATER-WORKS.

[At Canastota, N. Y.]

Sealed proposals will be received **up to 12 M., of August 4, 1885,** by the Board of Water Commissioners of the Village of Canastota, Madison County, N.Y., for the material and labor necessary in constructing the proposed water-works.

Specifications can be obtained from the Commissioners, and plans and drawings inspected at the office of the Water Commissioners, in the Village of Canastota.

The Board reserve the right to reject any and all bids.

J. H. McMAHON,
F. F. HUBBARD,
F. W. DOOLITTLE,
DECATUR GEE.
Commissioners.

501

LATHING AND PLASTERING AND JOINER WORK AND WOOD FLOORING.

[At Jackson, Tenn.]

OFFICE OF SUPERVISING ARCHITECT, TREASURY DEPARTMENT, WASHINGTON, D. C., July 20th, 1885.

Sealed proposals will be received at this office **until 2 P. M., on the 17th day of August, 1885,** for furnishing the materials and executing all the lathing and plastering, and all the joiner-work and wood flooring required in the court-house, post-office, etc., building at Jackson, Tenn., in accordance with drawings and specifications, copies of which and any additional information may be obtained on application at this office, or the office of the superintendent.

Bids must be accompanied by a certified check for $100 for the plaster-work, and $300 for the joiner-work.

M. E. BELL,
Supervising Architect.

500

FIRE-PROOF BUILDING FOR ARMY MEDICAL MUSEUM AND LIBRARY.

[At Washington, D. C.]

WASHINGTON, D. C., 612 Seventeenth St., July 9, 1885.

Sealed proposals for the erection of a fire-proof building for the Army Medical Museum and Library, to be three-st'y in height, with basement and attic, to cover about 23,000 square feet of surface, and to be located at the s e cor. of the Smithsonian Grounds, will be received at this office **until August 7th, 1885, at 12 M.,** and opened immediately thereafter in the presence of bidders.

Specifications, general instructions to bidders, and blank forms of proposal will be furnished on application to this office.

THOS. LINCOLN CASEY,
Colonel, Corps of Engineers.

500

STATE FAIR BUILDINGS.

[At Columbus, O.]

Proposals will be received at the office of the Ohio State Board of Agriculture **until 12 o'clock, noon, August 3d,** for furnishing the material and erecting he following buildings on the new Ohio State Fair Grounds at Columbus, viz.: —

Machinery Hall, Grand Stand, Band Stand, Judges' Stand, Horse Stables, Cattle Stables, and buildings for Sheep, Swine and Poultry.

Plans and specifications can be seen at the office of Terrell & Morris, Architects, 45 North High St., Columbus, O., on and after July 10.

All proposals must be accompanied by a sufficient guarantee that the contract will be entered into if awarded. The Board reserves the right to reject any or all bids. For particulars, address the Ohio State Board of Agriculture, Columbus, O.

500

SEWER.

[At Akron, O.]

CITY CIVIL ENGINEER'S OFFICE, AKRON, O., July 1, 1885.

Sealed proposals will be received at the City Clerk's office, **until 12 o'clock, M., Saturday, August 1, 1885,** for the construction of the main sewer on Howard Street, from the south line of Spring Street to the Little Cuyahoga River, in accordance to the plans and specifications now on file in the City Civil Engineer's Office.

Plans and specifications may be seen, and blanks can be obtained at this office on and after the 15th of July, 1885.

Each proposal must contain the full name of every person bidding on the same, and must be accompanied with the required surety.

Each bidder in addition to the amount of certified bail on proposal must deposit with the City Clerk a certificate of deposit of $500 drawn in his favor. The said certificate will be returned to all but the accepted bidder, to whom it will be returned on the completion and acceptance of the work.

The city reserves the right to reject all proposals.

By order of the City Council.

O. N. GARDNER, City Engineer.

500

GATE-HOUSE.

[At Croton Dam, N. Y.]

AQUEDUCT COMMISSIONER'S OFFICE, ROOM 209, STEWART BUILDING, 280 BROADWAY, NEW YORK, July 6, 1885.

Bids or proposals for constructing Section No. 1 of the new Croton aqueduct, in Westchester County, will be received at this office **until Wednesday, July 29, 1885, at 2 o'clock,** P. M., at which place and hour they will be publicly opened and read by the Aqueduct Commissioners, and the award of the contracts will be made by said Commissioners as soon thereafter as practicable.

The portion of the said aqueduct for the construction of which bids are now invited is the new gate-house at Croton Dam, and its connections with the old and new aqueduct and with Croton Lake.

Each bid must be inclosed in a sealed envelope, endorsed with the name of the person or persons making the same.

Each bid must state the name and place of residence of the person making the same, and the names of all persons interested with them therein; also that it is made without any connection with any other person making another bid for the same work, and is in all respects fair and without collusion or fraud; that no member of the Aqueduct Commission or of the Common Council, no head of a department, chief of a Bureau, deputy thereof, or clerk therein, or other officer of the corporation, or any person in the employ of the Aqueduct Commissioners, is directly or indirectly interested in the bid, or in the work to which it relates or in the profits thereof.

Each bid must be verified by the oath of the party making the same, that the several matters therein stated are true, and must be accompanied by a certified check upon a national or State bank of the City of New York, drawn to the order of the Comptroller of the City of New York, for an amount not less than five per cent of the amount of the security required for the faithful performance of the contract. Such check must not be enclosed with the bid, but must be delivered to the Aqueduct Commissioners, or to their Secretary, for delivery to the Comptroller. All deposits except those of the successful bidder will be returned by the Comptroller to the persons making the same, within three days after the contracts are awarded.

If the successful bidder shall neglect or refuse to execute the contract within ten days after notice of the award to him, the amount of his deposit will be forfeited to and retained by the City of New York, as liquidated damages for such neglect or refusal, pursuant to the provisions of Section 29 of Chapter 490 of the laws of 1883; but if he shall execute the contracts within the time aforesaid, the amount of his deposit will be returned to him.

The amount of security required on the contract for this section is fifty thousand dollars, and the surety required is that of two or more householders or resident freebolders of the State of New York (who must collectively qualify for double the amount of the bond), or approved surety companies incorporated under the laws of this State.

The names and residences of the sureties must be stated in the bids.

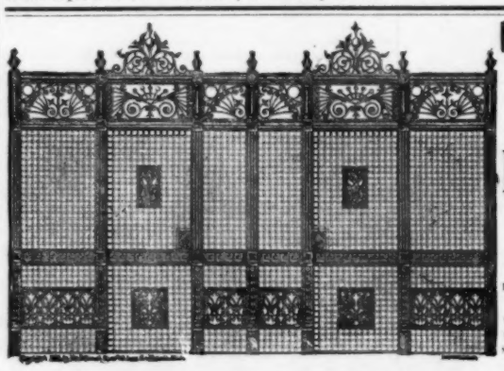
The Aqueduct Commissioners reserve the right to reject any and all bids if they deem it for the best interest of the city so to do.

Blank forms of bid or proposal, and proper envelopes for their enclosure, forms of the contract, specifications and bond, and all other information required, can be obtained at the above-named office of the Aqueduct Commissioners.

By order of the Aqueduct Commissioners.

JAMES W. McCULLOH, Secretary.

500



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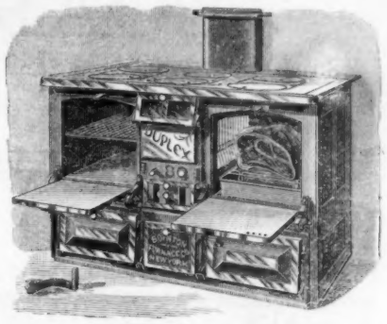

(Boynton's Duplex Roasting and Broiling Range.)

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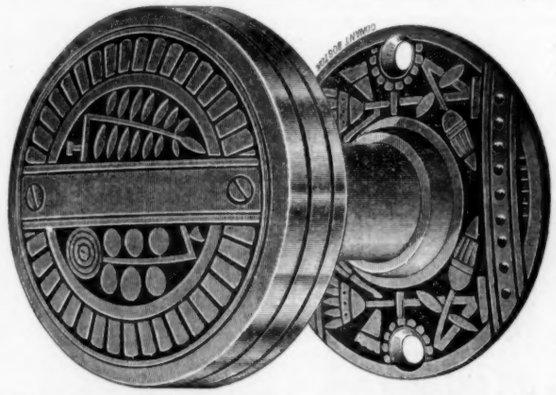

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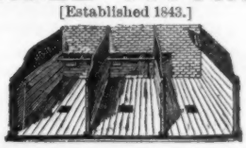

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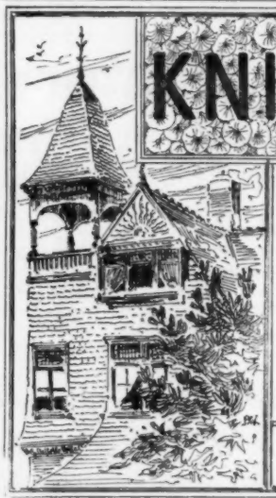

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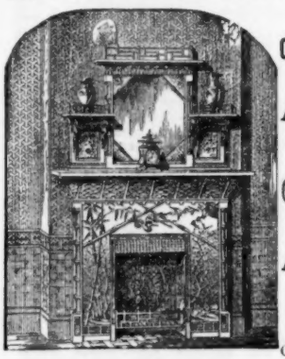

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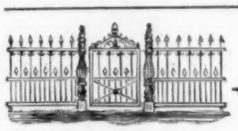

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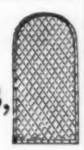

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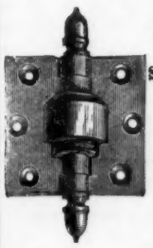

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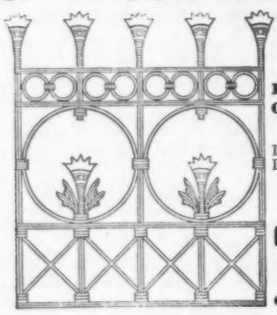

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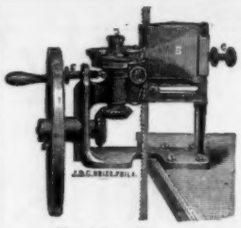

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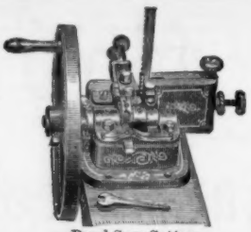

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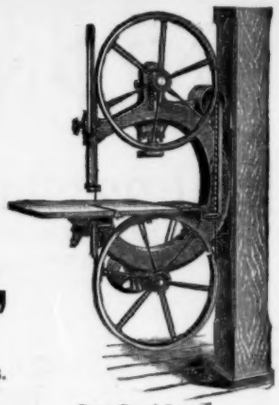

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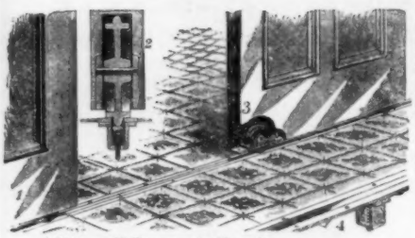

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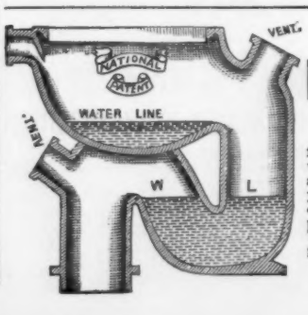

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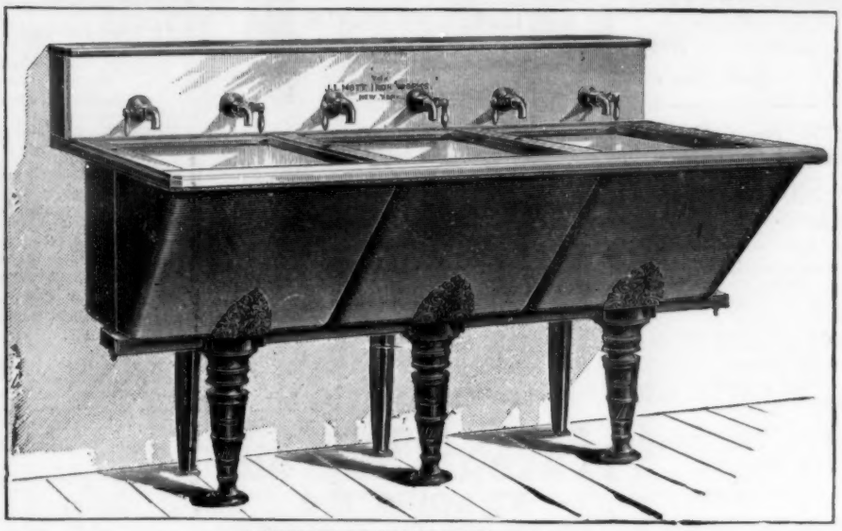

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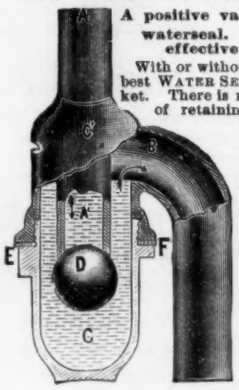

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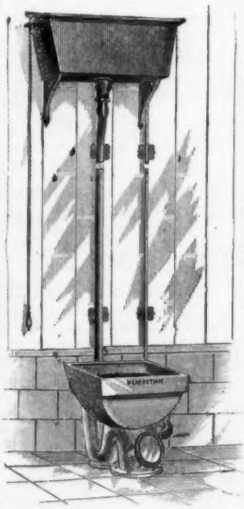

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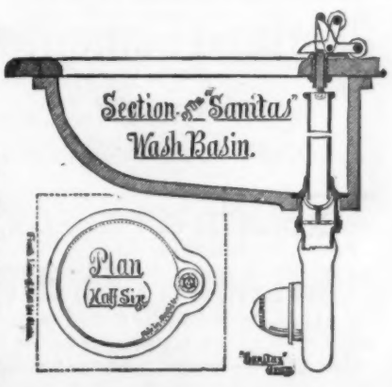

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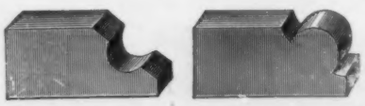

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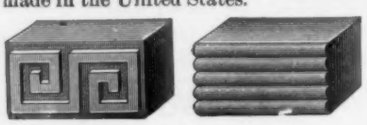

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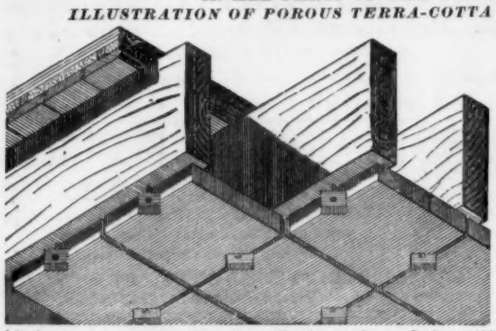

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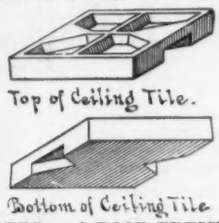

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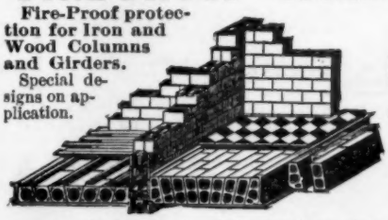

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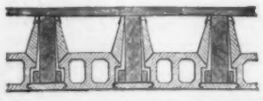

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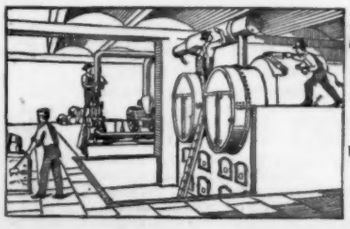

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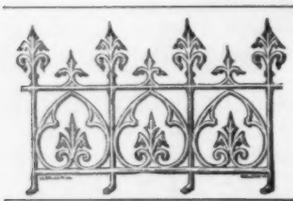

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